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County Borough



of Blackburn.



# ANNUAL REPORT

UPON THE

## Health of Blackburn

For the Year 1936.

BY

V. T. THIERENS, M.B., Ch.B. (L'pool), D.P.H. (Cambridge),

MEDICAL OFFICER OF HEALTH,

ADMINISTRATIVE TUBERCULOSIS OFFICER,

MEDICAL SUPERINTENDENT OF THE CORPORATION ISOLATION HOSPITALS

AND MUNICIPAL MATERNITY HOME,

SCHOOL MEDICAL OFFICER.

21 JULY 1937

BLACKBURN

THOMAS BRIGGS (BLACKBURN) LTD., 73 NORTHGATE.







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# CONTENTS.

	PAGE
Abattoir .....	69-77
Ambulance Facilities.....	31
Ante-Natal Care.....	150
Anti-Toxin, Diphtheria.....	96
Ash Receptacles.....	44
Anthrax .....	65
Bacteriological and Pathological Examinations .....	113, 183
Baths .....	44
Births .....	17
Blind, Care of the.....	185-186
Canal Boats.....	42
Cancer .....	24 to 27
Cattle Market.....	69
Census .....	14, 15
Cost of Public Health Department...	16
Climato.....	187
Cleansing Station .....	113
Closet Accommodation.....	43
Clinics .....	11
Common Lodging-houses .....	41
Contagious Diseases of Animals Acts .....	65-69
Conversions .....	43
Children (Boarded Out).....	179
Crippling .....	121, 173
Dairies .....	56
Deaths .....	21-23
Dental Work .....	121, 173
Diarrhœa .....	99
Diphtheria .....	94-96, 107-110
Disinfection .....	113
Education on Health .....	184
Encephalitis Lethargica .....	100
Enteric Fever .....	97, 98, 111
Factory and Workshops Acts.....	48-50
Farms .....	56
Fertilizers and Feeding Stuffs Act ...	82
Food and Drugs Acts .....	78-81
Food .....	56-84
Food, Preparing Places .....	65
Foot and Mouth Disease .....	65
Hospital for Infectious Diseases.....	101-113
Hospital Accommodation .....	30, 31
Hospital, Maternity .....	155, 156
Housing .....	37-41
Houses Let in Lodgings.....	41
Home Nursing .....	184
Ice Cream .....	83
Illegitimate Children.....	177
Infant Consultations .....	170-173
Infantile Mortality.....	164-169
Infectious Diseases .....	85-113
Infant Welfare Visitors' Work...174, 175	
Lavatory Accommodation.....	43
Local Government Act .....	183
Maternity and Child Welfare ...149 to 180	
Maternal Mortality.....	158-161

	PAGE
Maternity Hospital.....	155, 156
Marriages .....	17
Maternity Homes .....	178
Measles .....	99
Meat Inspection .....	69-77
Mental Defectives .....	183
Merchandise Marks Act.....	82
Meteorology.....	187
Midwives' Acts .....	152-154
Milk, Tuberculous .....	59, 60
Milk (Mothers and Children Order)... 176	
Milk .....	56-65
Natural Increase in Population .....	17
Neo-Natal Mortality .....	164
Notification of Births Acts .....	163
Notification of Infectious Diseases.....	86-91, 122
Nurses, District .....	184
Nursing Homes, Registration .....	178
Offensive Trades.....	43
Ophthalmia of the Newly-born .....	170
Occupational Statistics ... ..	27-30
Overcrowding.....	39-41
Parasitic Mange .....	66
Population .....	19
Post-Natal Care .....	151
Poultry Diseases.....	66 to 68
Premature Births .....	164
Public Assistance.....	31 to 33
Puerperal Sepsis .....	157
Queen's Park Hospital .....	30, 112, 156
Refuse, Collection of .....	44
Royal Infirmary.....	31, 112, 138, 140-143
Sanatorium .....	119-120, 127, 130, 135
Sanitary Work, Details of .....	35-53
Scarlet Fever .....	92, 93, 104-107
Scavenging .....	44
Sewers .....	43
Shell Fish .....	71
Slaughter-houses .....	69-77
Smoke Nuisance.....	50
Staff .....	9
Still-Births .....	163
Swimming Pools.....	44
Tents and Vans .....	42
Tuberculosis .....	115-135
Tuberculosis Dispensary.....	117-119, 124-126, 128-129, 135
Ultra-Violet Light Clinic.....	121, 182
Vaccination .....	101
Vans .....	42
Venereal Diseases .....	137 to 148
Veterinary Inspector's Report ... 65 to 69	
Vital Statistics .....	13 to 33
Ward Statistics .....	18, 19
Water .....	36
Whooping Cough .....	99
Workshops .....	48 to 50





# Health Committee.

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THE MAYOR (MR. COUNCILLOR W. HAMMOND, J.P.).  
ALDERMAN F. J. GREEVES, J.P., L.R.C.P. CHAIRMAN.

ALDERMEN—

CRITCHLEY, HOLDEN (VICE-CHAIRMAN), AND GRIMSHAW.

COUNCILLORS—

BEARDSWORTH, F.	DAVIES	LEACH
CASWELL	EDDIE	MOTTERSHEAD
	WHITEHEAD.	

---

## **MATERNITY AND CHILD WELFARE COMMITTEE—**

THE MAYOR (MR. COUNCILLOR W. HAMMOND, J.P.).  
ALDERMAN F. J. GREEVES, J.P., L.R.C.P. (CHAIRMAN).

ALDERMEN :

CRITCHLEY, GRIMSHAW AND HOLDEN (VICE-CHAIRMAN).

COUNCILLORS—

BEARDSWORTH, F.	MOTTERSHEAD
CARMICHAEL	TAYLOR, J. W.
CASWELL	WHITEHEAD
DAVIES	

MESDAMES—

COTTON, HEYES, STEPHENSON & TATTERSALL. Miss. K. HOWARD.

---

## **BLIND PERSONS ACT COMMITTEE—**

THE MAYOR (MR. COUNCILLOR W. HAMMOND, J.P.).  
ALDERMAN B. HOLDEN, J.P. (CHAIRMAN).

ALDERMEN :

CAMPBELL, CRITCHLEY, GREENWOOD (VICE-CHAIRMAN) & GRIMSHAW.

COUNCILLORS :

CASWELL, RILEY, ROGERSON, TAYLOR (J. W.), & WHITEHEAD.  
MESSRS. L. C. KING-WILKINSON, T. VIPOND, J. A. ORMEROD.  
MRS. A. COGGINS. Miss G. M. DEAN.

# Public Health Officers of the Local Authority.

## Medical Officer of Health—

V. T. THIERENS, M.B., CH.B., D.P.H.

## Assistant Medical Officers of Health—

E. D. IRVINE, M.D., M.R.C.S., L.R.C.P., D.P.H.

DOROTHEA I. BAIRD, M.B., CH.B., D.P.H., L.M.

JOHN B. TILLEY, M.D., B.S., B.HY., D.P.H.

SHEILA THOMSON, M.B., CH.B. D.P.H., M.M.S.A.

(Commenced 1st June, 1936).

## Dental Surgeons—

H. YATES, L.D.S.

A. E. B. NOBLE, L.D.S. (Resigned May, 1936).

G. WILLIAMSON, L.D.S. (Resigned October, 1936).

K. T. ADAMSON, L.D.S. (Commenced August, 1936).

## Dental Attendants—

Miss M. TOTTY.

Miss G. M. PELLMAN

Miss L. MARSDEN (Resigned November, 1936).

Miss G. BOOTH (Commenced November, 1936).

## Part Time Medical Officers—

W. BRIGGS, M.B., B.S. (Orthopaedic Surgeon).

R. Y. AITKEN, F.R.C.S. (Puerperal Fever Consultant).

J. M. WISHART, F.R.C.S.E. (Oculist and Laryngologist).

W. CRAN DUTHIE, M.B., C.M. (M.O. i/c Male Venereal Diseases Clinic).  
(Died February, 1936).

J. A. SELLARS, M.B., B.Ch., B.A.O. (Radiologist).

A. SEBBA, B.A., M.R.C.S., L.R.C.P., (M.O. i/c Male Venereal Diseases Clinic).  
(Commenced May, 1936).

## Pathologists—

Pathological work is carried out by the Pathologists at the Blackburn and East Lancashire Royal Infirmary and the Manchester and Liverpool Public Health Laboratories.

## District Medical Officers—

D. O'DRISCOLL, M.B., CH.B., B.A.O.

C. M. BRADLEY, L.R.C.P., L.R.C.S.

H. SOUTHWORTH, M.B., CH.B.

J. J. JENNINGS, M.B., CH.B., F.R.C.S. (Ed.).

ARTHUR LEIGH, M.B., CH.B.

## Public Vaccinators—

D. O'DRISCOLL, M.B., CH.B., B.A.O.

C. M. BRADLEY, L.R.C.P., L.R.C.S.

G. A. FLEMING, M.B., CH.B.

D. KELLEHER, M.B., CH.B., B.A.O.

J. B. LEIGH, M.B., CH.B.

H. SOUTHWORTH, M.B., CH.B.

## Vaccination Officer—

G. G. DICKINSON.

## Public Health Officers of the Local Authority—*Continued.*

### Public Analyst—

W. H. ROBERTS, M.Sc., F.I.C.

### Veterinary Inspector and Chief Meat Inspector—

E. J. BURNDRED, M.C., M.R.C.V.S., D.V.H.

\*H. KENYON, Chief District Sanitary Inspector.

\*W. H. GOODMAN, Assistant Meat Inspector.

\*H. W. FOWLER, Special Inspector for Food and Drugs, etc.

### District Inspectors—

\*J. W. MARGINSON.    \*W. WALNE.    \*J. A. SHAW.

\*C. AINSWORTH.    \*W. PARKER.    \*W. SUMNER (Commenced February, 1936).

### Lady Health Visitors—

§†\*Miss LOWE.    §\*Miss STANANOUGHT (Resigned February, 1936).    §††Miss BELL.

§††\*Miss THOMPSON.

††§Miss SUDWORTH.

§††Miss FRANKS.

\*§††Miss JONES.

§\*††Miss EVANS (Commenced July, 1936).

††§Miss HARRIS (Commenced August, 1936).

**Matron, Corporation Hospital—**§††Miss CRITCHLEY.

**Matron, Springfield Maternity Home—**§††Miss HUGHES.

**Tuberculosis Nurse—**§††Miss WILLIAMS.

**Chief Clerk—**THOMAS FOWLER.

### Clerks—

§H. WALSH.    \*J. R. MARSDEN.    Miss E. COMBERBACH.    Miss C. HAWORTH.

§J. MATHER.    §H. ROTHWELL.    §F. BRIGGS.    J. M. BELL.

### Disinfectors—

F. HOLDEN.    J. SLEVIN.

---

\*Holders of Certificates of the Royal Sanitary Institute.

†Certificated Midwives.

††Trained Nurses.

§A contribution to the salaries of these Officers is made from Exchequer grants.

# CLINICS.

NAME.	PURPOSE.	WHERE HELD.	TIMES.
Inspection Clinic.	Special Examination of Cases Referred by Teachers, School Attendance Officers and School Nurses.	68, Victoria Street.	Wednesdays, 2 p.m. Saturdays, 9-30 a.m.
Ophthalmic Clinic.	Prescription of Spectacles.	68, Victoria Street.	Mondays, 1-30 p.m. Fridays, 1-30 p.m.
Dental Clinic.	Dental Treatment.		Every week-day by appointment.
Minor Ailments Clinic.	Treatment of Minor Ailments, Diseases of Skin, etc.	68, Victoria Street.	Every week-day, at 8-45 a.m.
	"	All Saints' School, Bolton Road.	Mondays, Tuesdays, Thursdays & Fridays at 2-0 p.m. Wednesdays and Saturdays, 9-0 a.m.
Cleansing Station	Treatment of Scabies and Cleansing of Verminous Cases.	Throstle Street.	Tuesdays and Thursdays (by appointment).
Throat Clinic.	Operative Treatment of Adenoids and Enlarged Tonsils.	Blackburn and East Lanes. R. Infirmary.	Arranged as required.
"	"	Queen's Park Hospital.	Arranged as required.
Remedial Exercises.	Treatment of Deformities.	68, Victoria Street.	Every week-day (by appointment).
Tuberculosis Clinic.	Diagnosis and Treatment of Tuberculosis.	Dispensary, Duke Street.	Every week-day (except Thursday), at 2 p.m. Tuesday, 7-0 p.m.
Orthopædic Clinic.	Supervision of Cripples, etc.	68, Victoria Street.	Third Friday in each month, at 4-0 p.m.
Maternity and Child Welfare Centres.	Child Welfare.	Bent Street School.	Monday, 2-0 p.m.
	"	Kendal St. School.	Monday, 2-0 p.m.
	"	Hozier St. School.	Tuesday, 2-0 p.m.
	"	Cornelian St. Institute.	Tuesday, 2-0 p.m.
	"	All Saints' Sch Bolton Road.	Wednesday, 2-0 p.m.
	"	Hozier St. School.	Thursday, 2-0 p.m.
	"	Kendal St. School.	Thursday, 2-0 p.m.
	"	Griffin Parochial Hall	Friday, 2-0 p.m.
Ante-Natal Clinic.		68, Victoria Street.	Wednesday, Thursday and Friday, at 9-0 a.m.
Post-Natal " Special Ante-Natal Clinic.	(V.D.)	"	Tuesday, at 4-0 p.m.
Strabismus Clinic.	Correction of Squint in infants under school age.	"	Tuesday, 10-0 a.m.
Venereal Diseases Clinics.	(V.D.)	Royal Infirmary.	By special appointment. Men : Tuesday, 5-30 p.m. Friday, 6-0 p.m. Women : Monday, 5-30 p.m. Thursday, 6 p.m.
Ultra-Violet Light Clinic	Artificial Light Treatment.	Corporation Hospital.	Mondays, Tuesdays, Thursdays & Fridays, 2 p.m.
"	"	68, Victoria St.	Every week-day by appointment.
X-Ray Clinic.	X-Ray Examinations	"	By appointment.
Diphtheria Immunisation Clinic.	Provocation of Diphtheria.	68, Victoria Street.	Monday, 4—5-30 p.m.

PUBLIC HEALTH OFFICE,

BLACKBURN,

*May, 1937.*

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I beg to present the Annual Report upon the Health of Blackburn for 1936, which has been compiled on lines indicated by the Ministry of Health.

I would take this opportunity of thanking all members of the Health Department Staff for the zeal and loyalty which they have, one and all, displayed during the year.

It is once again a privilege to express to the members of the Health Committee my appreciation of the sympathy and interest which they have displayed in the work of this Department.

Sympathetic reference should here be made to the lamented death of Dr. W. Cran Duthie, a part-time specialist officer in the Department. His loss will be felt by all with whom he was associated.

I am,

Mr. Chairman, Ladies and Gentlemen,

Your obedient servant,

V. T. THIERENS.



*PART I.*

---

Vital Statistics  
*and*  
Social Conditions.



TABLE 1.

CENSUS, 1931.

WARDS	Acreage (Land and Inland Water)	TOTAL POPULATION.					PRIVATE FAMILIES AND DWELLINGS.				
		1921	1931				Private Families	Population in Private Families	Structurally Separate Dwellings Occupied	Rooms Occupied	Persons per Room
		Persons	Persons	Males	Females	Persons per Acre					
BLACKBURN ... ..	7653	126922	122697	56238	66459	16.0	33815	117746	32696	144055	0.82
PARK ... ..	651	9479	9052	4084	4968	13.9	2353	8418	2321	9928	0.85
ST. ANDREW'S ... ..	1146	10930	10783	4983	5800	9.4	3062	10666	2975	12739	0.84
ST. JOHN'S ... ..	101	7186	6520	2979	3541	64.6	1835	6310	1790	8001	0.79
ST. LUKE'S ... ..	168	7572	7333	3412	3921	43.6	2023	7222	1962	7917	0.91
ST. MARK'S ... ..	403	10427	9979	4467	5512	24.8	2752	9807	2703	12506	0.78
ST. MARY'S ... ..	174	5525	5147	2474	2673	29.6	1295	4564	1138	4882	0.93
ST. MATTHEW'S ... ..	107	9321	8561	3977	4584	80.0	2341	8328	2323	9584	0.87
ST. MICHAEL'S ... ..	623	8975	8580	3986	4594	13.8	2541	8511	2472	10691	0.80
ST. PAUL'S ... ..	123	9771	8929	4014	4915	72.6	2566	8780	2442	10770	0.82
ST. PETER'S ... ..	133	6719	6213	2932	3281	46.7	1612	5754	1454	6336	0.91
ST. SILAS'S ... ..	985	9009	9108	3911	5197	9.2	2693	8793	2609	14202	0.62
ST. STEPHEN'S ... ..	1171	11076	13215	6115	7100	11.3	3756	13074	3602	15795	0.83
ST. THOMAS'S ... ..	1718	12068	11255	5241	6014	6.6	2746	9793	2692	11925	0.82
TRINITY ... ..	150	8864	8022	3663	4359	53.5	2240	7726	2153	8779	0.88



TABLE 1—(Continued).  
COMPARISONS BETWEEN 1921 AND 1931.

WARDS	Acreage	TOTAL POPULATION.				PRIVATE FAMILIES AND DWELLINGS.				
		1921	1931			Private Families	Population in Private Families	Structurally Occupied Dwellings	Rooms Occupied	Persons per Room
			Persons	Males	Females	Persons per Acre				
BLACKBURN ...	+ 233	126922	— 4225	— 1548	— 2677	— 1.1	+ 2207	+ 1748	+ 7071	— 0.29
PARK ...	...	9479	— 427	— 143	— 284	— 0.7	+ 22	— 10	+ 37	— 0.23
ST. ANDREW'S ...	+ 225	10930	— 147	— 10	— 137	— 2.2	+ 315	+ 289	+ 1277	— 0.23
ST. JOHN'S ...	...	7186	— 666	— 287	— 379	— 6.5	— 41	— 40	— 21	— 0.34
ST. LUKE'S ...	...	7572	— 239	— 59	— 180	— 1.5	+ 87	+ 90	+ 164	— 0.12
ST. MARK'S ...	...	10427	— 448	— 215	— 233	— 1.1	+ 91	+ 110	+ 791	— 0.35
ST. MARY'S ...	...	5525	— 378	— 142	— 236	— 2.2	+ 24	— 74	— 277	— 0.09
ST. MATTHEW'S ...	...	9321	— 760	— 283	— 477	— 7.1	— 16	— 11	— 32	— 0.18
ST. MICHAEL'S ...	...	8975	— 395	— 105	— 290	— 0.6	+ 287	+ 230	+ 898	— 0.30
ST. PAUL'S ...	...	9771	— 842	— 378	— 464	— 6.9	+ 34	— 3	— 99	— 0.30
ST. PETER'S ...	...	6719	— 506	— 318	— 188	— 3.8	+ 31	— 43	— 271	— 0.14
ST. SILAS'S ...	...	9009	+ 99	+ 69	+ 30	+ 0.1	+ 253	+ 192	+ 886	— 0.88
ST. STEPHEN'S ...	+ 8	11076	+ 2139	+ 1026	+ 1113	+ 1.8	+ 1065	+ 1027	+ 3948	— 0.25
ST. THOMAS'S ...	...	12068	— 813	— 312	— 501	— 0.4	+ 20	+ 23	+ 93	— 0.26
TRINITY ...	...	8864	— 842	— 391	— 451	— 5.6	+ 35	— 32	— 323	— 0.17

## VITAL STATISTICS.

	1936
Area (in Acres) ... ..	8,080
Population (Census, 1931) ... ..	122,697
„ (Estimated middle of 1936) ... ..	116,000
Number of Inhabited Houses (1931) ... ..	32,696
Number of Families or Separate Occupiers (1931) ... ..	33,815
Rateable Value ... ..	£705,938
Sum Represented by a Penny Rate ... ..	£2,711
Rate in the £ (excluding Water) 1935-1936 . . . . .	12/6†
Gross Expenditure on Health Social Services . . . . .	£53,710
Income on Health Social Services ... ..	£16,935‡
Net Expenditure on Health Social Services ... ..	£36,775

† Subject to 2½% discount for early payment, making a net rate of 12/2.25d.

‡ This sum does not include any money received through the Block Grant.

Live Births	{ Legitimate ... 1299 }	{ M. 679 }	} Birth Rate ... 11.7
	{ Illegitimate ... 62 }	{ F. 682 }	

Number of women dying in, or in consequence of, child-birth, from—

Sepsis ... ..	2	{ 1.40 }	per 1,000
Other Causes ... ..	7	{ 4.91 }	births & stillbirths

Still Births ... .. 63

Rate per 1,000 total births ... .. 44.2

Deaths . . . . . { M. 795 } 1664 Death Rate ... 14.3  
   { F. 869 }

Percentage of total deaths occurring in public institutions ... 55.4

Deaths of infants under one year of age per 1,000 live births :—

Legitimate ... .. 61.6

Illegitimate ... .. 129.0

All Infants ... .. 64.6

Deaths rate from Measles (all ages) ... .. 0.00

„ Whooping Cough (all ages) ... .. 0.04

„ Diarrhoea (under two years of age) ... .. 2.20  
   (Per 1,000 births).

„ Cancer (all ages) ... .. 1.71

*Births* :—The births registered were 1,361, of which 62 were illegitimate. The total male births were 679, and female 682. The birth rate was 11·7 per 1,000, compared with 14·8 for England and Wales, and 14·9 for the 122 great towns.

TABLE 2.

<i>Year.</i>	<i>Birth Rate.</i>	<i>Death Rate.</i>	<i>Natural Increase</i> <i>1,000 Population.</i>
1921 . . . .	19·5	12·7	6·8
1922 . . . .	16·8	14·2	2·6
1923 . . . .	16·2	13·4	2·8
1924 . . . .	15·3	14·0	1·3
1925 . . . .	14·9	13·9	1·0
1926 . . . .	14·0	12·9	1·1
1927 . . . .	13·7	14·9	—1·3
1928 . . . .	13·8	12·2	1·5
1929 . . . .	12·4	14·9	—2·5
1930 . . . .	12·7	12·8	—0·08
1931 . . . .	12·4	12·8	—1·7
1932 . . . .	12·6	12·6	0·008
1933 . . . .	12·0	14·4	—2·4
1934 . . . .	12·0	13·1	—1·1
1935 . . . .	12·0	14·5	—2·5
1936 . . . .	11·7	14·3	—2·6

The death rate of Blackburn males was 14·9, and of females 13·8 per 1,000 living of each sex.

*Marriages*.—There were 1,065 marriages solemnized during the year as follows : Established Churches, 477 ; other places of worship, 397 ; Register Office, 191.

TABLE 3.

WARD DEATH RATES IN RELATION TO PERSONS PER ACRE  
AND ROOM SPACE.

1931 CENSUS.

<i>Ward.</i>	<i>Death Rate.</i>	<i>Persons per Acre.</i>	<i>Rooms per Person.</i>
St. Stephen's .. .. .	13·2	11·2	1·19
Trinity .. .. .	13·1	53·4	1·09
St. Michael's .. .. .	16·6	13·7	1·24
St. John's .. .. .	14·7	64·5	1·22
St. Silas' .. .. .	12·7	9·2	1·55
St. Paul's .. .. .	15·6	72·5	1·20
St. Peter's .. .. .	17·5	46·7	1·01
St. Mary's .. .. .	16·0	29·5	0·94
St. Matthew's .. .. .	12·8	81·0	1·11
St. Thomas's .. .. .	14·1	6·4	1·06
Park .. .. .	14·2	13·9	1·09
St. Luke's .. .. .	12·1	43·6	1·08
St. Mark's .. .. .	15·2	24·7	1·25
St. Andrew's .. .. .	14·2	9·4	1·09

TABLE 4.

DEATH RATES IN WARDS FOR THE PAST SIX YEARS.

<i>Ward.</i>	1931	1932	1933	1934	1935	1936	<i>Av. for 6 Years</i>
St. Stephen's .. .. .	17·1	12·1	12·0	12·1	13·6	13·2	13·3
Trinity .. .. .	13·9	13·1	12·8	12·3	13·7	13·1	13·1
St. Michael's .. .. .	12·1	12·5	13·6	14·6	13·0	16·6	13·7
St. John's .. .. .	12·0	14·6	17·0	12·7	14·5	14·7	14·2
St. Silas's .. .. .	14·9	13·0	14·5	11·7	14·4	12·7	13·5
St. Paul's .. .. .	14·8	12·7	16·0	13·7	16·0	15·6	14·8
St. Peter's .. .. .	15·5	15·3	14·4	12·3	16·2	17·5	15·2
St. Mary's .. .. .	16·6	12·4	15·4	17·6	17·7	16·0	15·9
St. Matthew's .. .. .	13·3	12·6	15·8	14·2	15·5	12·8	14·0
St. Thomas's .. .. .	12·3	11·9	14·1	12·2	14·3	14·1	13·1
Park .. .. .	12·9	12·3	16·1	12·0	14·3	14·2	13·6
St. Luke's .. .. .	14·6	11·7	14·0	15·3	15·4	12·1	13·8
St. Mark's .. .. .	12·5	11·2	14·5	13·7	15·0	15·3	13·7
St. Andrew's .. .. .	15·0	12·4	14·0	12·3	12·9	14·2	13·4
Borough .. .. .	14·1	12·6	14·4	13·1	14·5	14·3	13·8

**TABLE 5.**  
VITAL STATISTICS DURING 1936.

WARDS	Popula- tion	Births	Deaths	Birth- Rate	Death- Rate	Deaths under one year per 1000 Births	Death- rate from six Zymotic Diseases excluding Diarrhoea	Death- rate from Diar- rhoea	Death- rate from Bron- chitis & Pneu- monia	Death-rate from Pulmonary Tuberculosis	Death-rate from Non-Pulmonary Tuberculosis
ST. STEPHEN'S ...	12493	171	165	13.6	13.2	52	0.08	0.08	1.80	1.28	0.16
TRINITY ...	7587	91	100	12.0	13.1	22	0.00	0.00	3.55	0.52	0.00
ST. MICHAEL'S ...	8120	87	135	10.7	16.6	92	0.00	0.00	3.07	0.24	0.12
ST. JOHN'S...	6160	81	91	13.1	14.7	74	0.00	0.32	3.57	1.13	0.16
ST. SILAS'S...	8607	51	110	5.9	12.7	39	0.00	0.00	1.85	0.69	0.00
ST. PAUL'S...	8445	115	132	13.6	15.6	95	0.35	0.11	2.24	0.71	0.11
ST. PETER'S ...	5870	80	103	13.6	17.5	75	0.00	0.00	4.94	0.85	0.00
ST. MARY'S ...	4872	70	78	14.3	16.0	157	0.41	0.00	4.31	0.82	0.00
ST. MATTHEW'S...	8085	81	104	10.0	12.8	37	0.00	0.00	2.72	0.00	0.12
ST. THOMAS'S ...	10637	112	150	10.5	14.1	53	0.00	0.00	2.16	0.56	0.09
PARK ...	8561	108	122	12.6	14.2	74	0.00	0.00	2.92	0.93	0.00
ST. LUKE'S ...	6936	96	84	13.8	12.1	52	0.00	0.00	2.73	0.43	0.00
ST. MARK'S ...	9430	101	145	10.7	15.3	39	0.10	0.00	2.54	0.63	0.21
ST. ANDREW'S ...	10197	117	145	11.4	14.2	59	0.09	0.00	2.35	0.58	0.00
BOROUGH ...	116000	1361	1664	11.7	14.3	64	0.06	0.03	2.75	0.68	0.07





TABLE 7.

DEATHS REGISTERED DURING THE CALENDAR YEAR 1936 CLASSIFIED BY AGE AND CAUSE.

CAUSES OF DEATH.		Nett Deaths at the subjoined ages of "Residents," whether occurring within or without the District.											Total Deaths whether of "Resi- dents" or "non- residents" in Institutions in the District.
		All Ages	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 35 years.	35 and under 45 years.	45 and under 55 years.	55 and under 65 years.	65 years and upwards.	
1		2	3	4	5	6	7	8	9	10	11	12	13
All Causes	Certified .....	1663	88	10	13	27	42	66	87	185	321	824	923
	Uncertified .....	1	..	..	..	..	..	..	..	..	..	1	..
Enteric Fever .....		1	..	..	..	..	..	1	..	..	..	..	1
Small Pox .....		..	..	..	..	..	..	..	..	..	..	..	..
Measles .....		..	..	..	..	..	..	..	..	..	..	..	1
Scarlet Fever .....		..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .....		5	3	1	..	1	..	..	..	..	..	..	2
Diphtheria and Croup .....		2	..	..	1	1	..	..	..	..	..	..	3
Influenza .....		12	..	..	..	..	..	..	..	2	4	6	1
Erysipelas .....		..	..	..	..	..	..	..	..	..	..	..	1
Tetanus .....		..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis .....		79	..	..	..	..	13	15	19	13	15	4	27
Tuberculous Meningitis .....		..	..	..	..	..	..	..	..	..	..	..	4
Other Tuberculous Diseases .....		9	..	..	1	1	1	1	1	2	..	2	7
Cancer, Malignant Disease .....		199	..	..	..	..	..	2	7	33	60	97	122
Acute Rheumatism and Rheumatic Fever .....		6	..	..	..	2	..	..	1	..	1	2	1
Cerebro-Spinal Meningitis .....		..	..	..	..	..	..	..	..	..	..	..	1
Encephalitis Lethargica .....		5	..	..	..	..	..	1	1	..	2	1	4
Other Forms of Meningitis (not T.B.) .....		7	1	2	..	3	..	..	1	..	..	..	9
Poliomyelitis .....		..	..	..	..	..	..	..	..	..	..	..	..
Locomotor Ataxy .....		..	..	..	..	..	..	..	..	..	..	..	..
General Paralysis of the Insane ..		2	..	..	..	..	..	..	..	2	..	..	..
Cerebral Hæmorrhage .....		77	..	..	..	..	1	1	5	11	19	40	24
Other Diseases of the Nervous Sys'm ..		37	1	1	..	..	3	2	1	5	9	15	19
Senile Decay .....		157	..	..	..	..	..	..	..	..	2	155	99
Organic Heart Disease .....		209	..	..	..	5	6	5	4	22	40	127	73
Arterio-Sclerosis .....		102	..	..	..	..	..	..	1	7	18	76	56
Aneurism .....		..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of the Circulatory System .....		23	..	..	..	..	1	..	1	5	8	8	7
Bronchitis, Acute .....		23	3	..	1	..	..	..	..	2	1	16	2
Bronchitis, Chronic .....		180	1	..	..	..	..	1	5	23	37	113	75
Influenzal Broncho Pneumonia ....		7	1	..	1	..	..	2	1	..	..	2	1
Pneumonia (other forms) .....		109	15	6	2	3	1	9	8	14	21	30	52
Other Diseases of the Respiratory System .....		10	..	..	1	..	..	..	1	2	4	2	10
Diarrhœa and Enteritis .....		4	3	..	..	..	..	..	..	..	..	1	3
Appendicitis, Typhlitis and Peri- tonitis .....		12	..	..	..	1	2	2	2	1	2	2	21
Cirrhosis of the Liver .....		8	..	..	..	1	..	..	..	1	3	3	5
Alcoholism .....		..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of the Digestive Sys'm ..		52	..	..	1	..	..	..	8	5	16	22	66
Nephritis and Bright's Disease ....		78	..	..	1	1	2	3	6	11	17	37	36
Other Diseases of the Urinary Sys'm ..		10	..	..	..	..	..	..	1	..	2	7	9
Puerperal Fever .....		2	..	..	..	..	1	..	1	..	..	..	2
Puerperal Pyrexia .....		..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases and Accidents of Pregnancy and Parturition ....		7	..	..	..	..	1	4	2	..	..	..	8
Congenital Dobility and Malforma'n ..		38	38	..	..	..	..	..	..	..	..	..	24
Premature Birth .....		21	21	..	..	..	..	..	..	..	..	..	13
Venereal Diseases .....		1	..	..	..	..	..	..	..	..	1	..	1
Other Diseases of the Reproductive System (Non-Malignant) ....		11	..	..	..	..	..	..	..	..	1	10	12
Violent Deaths (excluding Suicide)..		61	..	..	4	6	7	9	3	7	11	14	64
Suicide .....		26	..	..	..	..	1	2	2	9	7	5	4
All other Defined Diseases .....		72	1	..	..	2	2	6	5	8	20	28	53
Diseases Ill-defined or unknown ....		..	..	..	..	..	..	..	..	..	..	..	..
All Causes .....		1664	88	10	13	27	42	66	87	185	321	825	923

TABLE 8.

## CLASSIFICATION OF DEATHS ACCORDING TO DISEASE.

CAUSE OF DEATH.	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	
	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Total Deaths	Death Rate
Enteric Fever .....	2	1	..	..	2	1	..	..	..	..	1	0.008
Smallpox .....	..	..	..	..	..	..	..	..	4	..	..	..
Measles .....	3	36	..	..	23	1	..	21	..	9	..	..
Scarlet Fever.....	1	1	..	2	..	..	1	2	5	1	..	..
Whooping Cough .....	20	1	4	8	5	15	9	2	5	7	5	0.04
Diphtheria and Croup ....	8	11	14	18	9	2	7	5	4	23	2	0.01
Influenza .....	23	74	19	65	7	52	31	61	11	21	12	0.10
Erysipelæ .....	1	7	..	3	3	5	1	5	4	4	..	..
Phthisis (Pulmonary Tuberculosis) .....	106	96	82	114	105	97	79	84	67	79	79	0.68
Tuberculous Meningitis ....	2	2	7	4	9	7	5	5	4	7	..	..
Other Tuberculous Diseases..	8	12	14	9	9	11	14	7	7	10	9	0.07
Cancer, Malignant Disease ..	166	160	163	192	185	213	202	202	211	195	199	1.71
Rheumatic Fever .....	..	5	2	2	3	4	8	9	7	13	6	0.05
Meningitis .....	9	5	14	18	8	11	6	3	3	2	7	0.06
Organic Heart Disease.....	198	269	334	315	279	240	192	189	217	182	209	1.80
Bronchitis .....	192	221	119	190	140	209	129	178	112	178	203	1.75
Pneumonia (all forms).....	112	175	152	201	143	139	89	137	118	141	116	1.00
Other Diseases of Respiratory Organs .....	20	27	25	29	28	17	19	20	10	16	10	0.08
Diarrhœa and Enteritis ....	15	24	8	8	9	13	8	11	8	6	4	0.03
Appendicitis and Typhlitis..	13	12	19	21	11	7	15	11	8	10	12	0.10
Cirrhosis of Liver .....	2	3	1	4	4	5	..	1	2	4	8	0.06
Alcoholism .....	1	1	..	..	..	1	..	..	..	..	..	..
Nephritis & Bright's Disease.	59	40	31	66	76	75	72	86	67	84	78	0.67
Puerperal Fever .....	7	3	1	2	..	1	1	..	3	2	2	0.01
Other Accidents and Diseases of Pregnancy and Par- turation .....	7	10	6	13	7	5	8	6	6	5	7	0.06
Congenital Debility and Mal- formation, including Pre- mature Birth.....	76	66	71	57	75	38	66	52	59	52	59	0.50
Violent Deaths, excluding Suicide .....	52	60	50	72	57	60	63	57	53	59	61	0.52
Suicide .....	16	27	20	17	26	25	22	31	23	22	26	0.22
Other Defined Diseases ....	494	514	372	435	379	501	495	574	563	593	549	4.72
Diseases ill-defined or un- known .....	3	1	7	6	3	..	..	..	..	..	..	..
<b>TOTAL.....</b>	<b>1616</b>	<b>1864</b>	<b>1535</b>	<b>1871</b>	<b>1605</b>	<b>1755</b>	<b>1542</b>	<b>1759</b>	<b>1581</b>	<b>1725</b>	<b>1664</b>	<b>14.34</b>



*Deaths* :—The total number of deaths registered was 1,664, of which 795 were males and 869 were females. The death rate was 14·3 per 1,000, compared with 12·1 for England and Wales and 12·3 for the 122 great towns.

## CAUSES OF DEATH AND SICKNESS.

During 1936 the chief causes of death were as under :—

<i>Disease.</i>	<i>No. of Deaths.</i>		<i>Deaths per 1,000.</i>	
Organic Heart Disease ... ..	209	(182)	1·80	(1·54)
Pneumonia ... ..	116	(141)	1·00	(1·19)
Cancer ... ..	199	(195)	1·71	(1·64)
Bronchitis ... ..	203	(178)	1·75	(1·50)
Pulmonary Tuberculosis ... ..	79	(79)	0·68	(0·66)

*The bracketed figures represent the corresponding number for 1935.*

Diseases of bodily systems and group diseases to which death was assigned are as follows :—

<i>Disease.</i>	<i>No. of Deaths.</i>		<i>Deaths per 1,000.</i>	
Respiratory System (Non-Tubercular) ..	329	(335)	2·83	(2·83)
Circulatory System ... ..	334	(346)	2·87	(2·92)
Nervous System (Non-Tubercular) ... ..	128	(122)	1·10	(1·03)
Cancer ... ..	199	(195)	1·71	(1·64)
Tuberculosis (all forms) ... ..	88	(96)	0·75	(0·81)
Renal System (Non-Tubercular) ... ..	88	(86)	0·75	(0·72)
Infectious Diseases ... ..	20	(65)	0·17	(0·55)
Digestive Diseases ... ..	76	(83)	0·65	(0·70)
Diseases of Babyhood (under one year) ...	59	(52)	0·50	(0·44)
Diseases associated with Maternity ... ..	9	(7)	0·07	(0·05)

*The bracketed figures represent the corresponding number for 1935.*

## CANCER.

The deaths from Cancer numbered 199, as compared with 195 in 1935 : 211 in 1934 ; 202 in 1933 ; 202 in 1932 ; 213 in 1931.

The Death Rates from Cancer per 1,000 of the population for the past 12 years are as under :—

1925	..	..	1·26	1931	..	...	1·71
1926	...	...	1·33	1932	...	...	1·65
1927	...	..	1·28	1933	...	...	1·66
1928	...	..	1·30	1934	...	...	1·76
1929	...	...	1·53	1935	...	...	1·64
1930	.	..	1·48	1936	...	...	1·71

TABLE 9.

DEATHS FROM CANCER OCCURRED AT THE FOLLOWING AGES :

<i>Age Period.</i>	<i>Male.</i>	<i>Female</i>	<i>Total</i>	<i>No. of popu- lation at this age period.</i>	<i>Number o deaths per 1,000 persons living.</i>
Under 25 years .. .. .	..	..	..	38280	0·00
25 and under 35 years .. ..	2	..	2	28884	0·06
35 „ 45 years .. ..	3	4	7	18212	0·38
45 „ 65 years .. ..	33	60	93	24360	3·81
65 years and over .. .. .	41	56	97	6264	15·48
	79	120	199	116000	1·71

TABLE 10.

## SITES OF FATAL CANCER.

<i>Site.</i>	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Tongue and Mouth .. ..	5	3	8
Oesophagus .. .. .	6	2	8
Stomach .. .. .	17	16	33
Liver .. .. .	9	11	20
Bowel and Abdominal ..	10	25	35
Rectum .. .. .	4	4	8
Bladder .. .. .	2	—	2
Larynx .. .. .	1	1	2
Uterus .. .. .	—	15	15
Breast .. .. .	—	25	25
Pancreas .. .. .	3	6	9
Gall Bladder .. .. .	1	2	3
Bones .. .. .	3	1	4
Lung .. .. .	4	—	4
Male Genital Organs ..	8	—	8
Others .. .. .	6	9	15
<b>TOTAL .. .. .</b>	<b>79</b>	<b>120</b>	<b>199</b>

## TREATMENT OF CANCER.

Cases are treated at the Blackburn & East Lancashire Royal Infirmary, which is a regional radium centre, by surgery, by radium, and by a combination of these methods. No beds are specifically allotted for the reception of the cases, patients being admitted to the wards of the surgeon in charge of the centre.

Facilities are also provided at the Queen's Park Hospital for surgical and palliative treatment. This Hospital works in close collaboration with the regional radium centre at the Royal Infirmary, selected cases being transferred to the latter Hospital for treatment.

No printed propaganda respecting cancer has been circulated in the area, but, in the course of health lectures which are carried out by the Department, reference is made to the necessity of securing early examination and treatment of this condition.

## RADIUM TREATMENT OF CANCER.

The appended particulars are abstracted from the Royal Infirmary Report for 1936 :—

“ The following is a summary of the number of cases and the various types of diseases treated during the year 1936 :—

CARCINOMATOUS CONDITIONS OF—						IN-PATIENTS.	OUT-PATIENTS.
Forehead	...	...	...	...	...	2	6
Tongue	...	...	...	...	...	14	30
Fauces	...	...	...	...	...	2	2
Larynx	...	...	...	...	...	0	2
Pharynx	...	...	...	...	...	2	6
Floor of Mouth	...	...	...	...	...	4	6
Roof of Mouth	...	...	...	...	...	0	4
Palate	...	...	...	...	...	4	4
Tonsil	...	...	...	...	...	11	16
Cheek	...	...	...	...	...	3	8
Alveolus	...	...	...	...	...	5	10
Inner Canthus	...	...	...	...	...	1	3
Ear	...	...	...	...	...	2	4
Nose	...	...	...	...	...	4	7
Lip	...	...	...	...	...	5	12
Esophagus	...	...	...	...	...	1	1
Sarcoma—Humerus	...	...	...	...	...	0	1
Epithelioma—Skin	...	...	...	...	...	1	3
Lupus	...	...	...	...	...	0	3
Nævus	...	...	...	...	...	7	41
Rodent Ulcer	...	...	...	...	...	2	70
Keloid Scar	...	...	...	...	...	0	5
Melanoma—Foot	...	...	...	...	...	1	1
Melano—Sarcoma	...	...	...	...	...	0	1
Arm	...	...	...	...	...	1	2
Hand	...	...	...	...	...	0	1
Finger	...	...	...	...	...	1	4
Breast	...	...	...	...	...	26	59
Cervix	...	...	...	...	...	15	25
Vagina	...	...	...	...	...	3	3
Uterus	...	...	...	...	...	9	15
Vulva	...	...	...	...	...	2	4
Cæcum	...	...	...	...	...	1	1
Anus	...	...	...	...	...	3	3
Scrotum	...	...	...	...	...	5	9
Rectum	...	...	...	...	...	3	3
Penis	...	...	...	...	...	1	5
Bladder	...	...	...	...	...	1	1
Parotid	...	...	...	...	...	1	2
Antrum	...	...	...	...	...	0	2
Angioma—Neck	...	...	...	...	...	0	1
Lip	...	...	...	...	...	1	1
Skin	...	...	...	...	...	0	1
Malig. Glands—Neck	...	...	...	...	...	0	3
Groin	...	...	...	...	...	1	1
Non-Malignant...	...	...	...	...	...	6	20
						151	412

In addition 63 operations under local anaesthesia have been performed for implantation of radon seeds.

During the last year the number of cases treated has again increased, and the attendances of patients have been more regular. As practically all cases treated with Radium are now followed up by X-Ray Treatment, the work of the X-Ray Therapy Department has been increased, and in consequence the deep therapy apparatus is working to its fullest capacity. The purchase of a Dosimeter during the year has made the treatments much more accurate and effective.

The Clinic will shortly have been working five years, and the effectiveness of the earlier treatments will be evident and of great assistance in determining future technique.

The arrangements with the Holt Radium Institute, Manchester, are working most satisfactorily, and I am grateful to the Staff of that Institution for their ready help."

J. KEITH CUMMING, M.B., CH.B. (ABERDEEN).

#### MORTALITY STATISTICS IN COTTON OPERATIVES.

The subjoined Tables are a continuation of those given in previous reports.

TABLE 11.

## RESPIRATORY DISEASES (NON-TUBERCULAR).

DEATH-RATES PER 1,000 EMPLOYEES (1921 CENSUS).

## DEATHS.

## DEATH RATES.

Age Period.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.						M.	F.					
Years														
15-25..	..	..	..	..	..	..	1	0.7	0.6	..	..	..	..	0.04
25-35..	1	3	..	..	..	..	12	..	..	..	..	..	..	0.5
35-45..	..	..	..	1	..	..	15	..	..	..	1.2	..	..	0.7
45-55..	2	4	..	1	1	..	41	2.0	2.3	..	1.9	6.0	..	2.5
55-65..	3	2	2	1	1	5	63	4.5	2.9	17.0	3.8	11.6	23.2	5.9
65 and upwards..	9	11	3	3	3	4	163	44.7	88.8	103.4	46.1	142.8	74.0	23.7
Total .. ..	15	20	5	6	5	9	295	2.3	1.1	2.5	1.8	3.4	2.5	3.0

## PULMONARY TUBERCULOSIS.

15-25..	..	2	..	1	..	1	13	0.7	0.2	..	0.6	..	0.7	0.5
25-35..	1	3	..	..	..	2	15	0.7	0.6	..	..	..	2.2	0.7
35-45..	..	2	..	..	..	1	19	..	0.5	..	..	..	1.4	0.9
45-55..	3	..	..	2	..	1	13	3.0	..	..	3.9	..	2.4	0.8
55-65..	3	..	..	..	..	..	15	4.5	..	..	..	..	..	1.4
65 and upwards..	..	1	..	..	..	..	4	..	8.0	..	..	..	..	0.5
Total .. ..	7	8	..	3	..	5	79	1.1	0.4	..	0.6	..	1.3	0.8



TABLE 11—Continued.

## NON-PULMONARY TUBERCULOSIS.

DEATHS.										DEATH RATES.				
Age Period.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.						M.	F.					
Years														
15—25..	..	..	..	..	..	..	1	..	..	..	..	..	..	0.04
25—35..	..	..	..	..	..	..	1	..	..	..	..	..	..	0.04
35—45..	..	..	..	..	..	..	1	..	..	..	..	..	..	0.05
45—55..	..	..	..	1	..	..	2	..	..	..	1.9	..	..	0.1
55—65..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
65 and upwards..	1	..	..	..	..	..	1	4.9	..	..	..	..	..	0.1
TOTAL ..	1	..	..	1	..	..	6	0.1	..	..	0.2	..	..	0.06

ALL OTHER DISEASES.														
Age Period.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.	Weavers.		Spinners.	Winders, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.						M.	F.					
16—25..	..	3	..	1	..	1	26	..	0.4	..	0.6	..	0.7	1.1
25—35..	..	5	..	2	..	3	38	..	1.0	..	1.8	..	3.3	1.8
35—45..	2	11	..	1	1	1	52	1.7	3.2	..	1.2	3.7	14.8	2.6
45—55..	2	11	..	3	1	5	129	2.0	6.4	..	5.9	6.1	12.1	8.0
55—65..	9	16	2	6	2	9	243	13.6	23.6	17.0	23.0	23.2	41.8	22.8
65 and upwards..	38	14	11	9	2	27	657	189.5	112.9	379.3	138.4	95.2	500.0	95.7
TOTAL ..	51	60	13	22	6	46	1145	8.1	3.3	6.6	5.0	4.2	12.8	11.8
GRAND TOTAL...	74	88	18	32	11	60	1525	11.7	4.9	9.2	7.3	7.6	16.7	15.8

**TABLE 12.****POPULATION, 1921 CENSUS.**

Age Period. Years	Weavers.		Spinners.	Winders, Warpers, etc.	Card Room Hands.	Other Cotton Operatives.	Borough.
	M.	F.					
15—25.. . . . .	2019	7009	723	1616	530	1329	21946
25—35.. . . . .	1258	4892	490	1094	359	899	20876
35—45.. . . . .	1151	3380	367	819	269	674	19878
45—55.. . . . .	1000	1707	224	501	164	412	16052
55—65.. . . . .	660	676	117	261	86	215	10647
65 and upwards.. . . .	201	124	29	65	21	54	6866
<b>TOTAL</b> . . . . .	<b>6289</b>	<b>17788</b>	<b>1950</b>	<b>4356</b>	<b>1429</b>	<b>3583</b>	<b>96265</b>

**HOSPITAL ACCOMMODATION.**

There have been no developments or changes in the hospital or pathological services provided by the Health Committee.

**QUEEN'S PARK HOSPITAL.**

The staffing of the above Hospital has been described in previous Reports.

The appended Table classifies the accommodation for the sick at the Queen's Park Hospital :—

**TABLE 13.**

Classification of Wards	Number of Wards	BEDS AVAILABLE.			
		Men	Women	Children	Total.
Medical ... ..	4	48	79	...	127
Surgical ... ..	2	37	33	...	70
Children... ..	3	...	...	126	126
Chronic Sick... ..	5	71	74	...	145
Tuberculosis ... ..	1	18	4	15	37
Maternity ... ..	1	...	30	...	30
Mental ... ..	2	66	94	...	160
Other ... ..	...	7	...	...	7
<b>TOTAL</b> ... ..	<b>18</b>	<b>247</b>	<b>314</b>	<b>141</b>	<b>702</b>



## (b) VOLUNTARY HOSPITALS.

The Blackburn and East Lancashire Royal Infirmary has accommodation for 244 in-patients. The beds are allotted as under :—

	<i>Males.</i>		<i>Females.</i>
General Medical ... ..	10	...	14
General Surgical ... ..	85	...	83
Children ... ..	11	...	11
Venereal Disease ... ..	2	...	2
Eye, Ear, Nose & Throat ...	11	...	15
	—		—
TOTAL ... ..	119	...	125
	—		—

## AMBULANCE FACILITIES.

(1) *For Infectious Cases :—*

The Health Committee provide Two Motor Ambulances.

(2) *For Non-Infectious Cases :—*

Three Motor Ambulances are available, one provided by the Watch Committee, one by the Joint Committee of the British Red Cross Society and the St. John Ambulance Brigade, and one by the Public Assistance Committee.

The Ambulance Service is fully adequate for the needs of the Area.

## PUBLIC ASSISTANCE.

I am indebted to Mr. G. B. Pye, Public Assistance Officer, for the appended particulars.

No. of residents in the County Borough in receipt of out-door relief :—

1st January, 1936	...	2233 families comprising 4240 persons.
1st July, 1936	...	2098 families. comprising 3738 persons.
1st January, 1937	...	2109 families, comprising 3749 persons.

No. of Blackburn persons relieved on the 1st January, 1937, in the--

Institution	...	...	...	..	720
Cottage Homes	...	...	...	...	38
Working Boys' Home	...	...	...	...	7

In addition there are a number of persons in the Institution, Cottage Homes and the Working Boys' Home who are chargeable to the Lancashire County Council.

Expenditure on out-relief to Blackburn persons during the 12 months ended 30th September, 1936, was £64,686/4/7.

No. of Blackburn persons in Queen's Park Hospital on the 1st January, 1937, included in the 720 mentioned above ... .. 382

Average No. of Blackburn persons in the Cottage Homes during 1936 ... .. (per day) 45

Total number of Beds in the Institution, 1st January, 1937 ... .. 1243

Total number of Inmates on the same day (including persons chargeable to the Lancashire County Council) ... .. 1036

Total number of Inmates of the Institution on the 1st January, 1937, who were suffering from sickness, accident, bodily or mental infirmity, including aged and infirm persons requiring regular nursing care or treatment ... .. 992

Total number of Sick Children on the 1st January, 1936 ... .. 126

Admitted during 1936 ... .. 682

Discharged during 1936 ... .. 628

Died during 1936 ... .. 43

Total number of Sick Children on the 1st January, 1937 ... .. 137

Number of Beds available for Casuals ... .. 98

There has been no change in the method of administration of Poor Law Medical Out-Relief since the service was transferred to the Local Authority.

The districts, with populations, are as under :—

<i>Districts.</i>		<i>Population 1931.</i>
St. Matthew's Ward	}	.    ...    28868
Park Ward    ...		
St. Thomas's Ward		
St. Luke's Ward . .	}	...    ...    22475
St. Paul's Ward ...		
St. Peter's Ward		
St. Mary's Ward	}	..    ...    26384
St. Stephen's Ward		
Trinity Ward    ...		
St. John's Ward ...	}	...    ...    24208
St. Michael's Ward		
St. Silas' Ward    ..		
St. Andrew's Ward	}	...    ...    20762
St. Mark's Ward		



*PART II.*

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Sanitary Circumstances.

## WATER SUPPLY.

The town is supplied with an upland surface water, which has been satisfactory, both as regards quantity and chemical and bacteriological purity.

Samples are chemically examined at fortnightly intervals and bacteriological samples are taken at least once per month.

Appended are representative reports of bacteriological and chemical examinations carried out during the year:—

## (a) CHEMICAL.

Numerical results expressed in parts per 100,000 :

Colour : Green.	Turbidity : Slight.	Smell : None.
Oxygen absorbed ... .. (4 hours at 27° C.)	0·121	Hardness : Clarke's Method :
Free and Saline Ammonia	0·0020	Temporary ... .. 1·5
as NH <sub>3</sub>		Permanent ... .. 4·8
Albuminoid Ammonia	0·0108	Total ... .. 6·3
as NH <sub>3</sub>		Reaction, pH ... 6·5-7·0
Nitrous Nitrogen ... ..	nil.	Action on Lead ... .. 0·40
as NH <sub>3</sub>		„ „ Copper ... .. 0·06
Nitric Nitrogen ... ..	0·045	24 hours.
as NH <sub>3</sub>		Metals ... .. Nil.
Chlorides ... ..	1·3	
as Cl.		

## (b) BACTERIOLOGICAL.

*Quantitative Analysis—**Average Results of Four Examinations.*

Aerobic micro-organisms growing in yeastrel agar—	No. of colonies per c.c. of water
In 3 days at 22° C. ... ..	78
In 2 days at 37° C. ... ..	22
Bacteria associated with sewage or faecal pollution—	Quantity of water in which these bacteria were—
Bacillus coli ... ..	found not found
Probable number of coli-aerogenes bacteria per 100 c.c. of water ... ..	100 c.c. 10 c.c.
	One

## (c) WATER CONSUMPTION :

Average Daily Consumption ... ..	3,664,265 gallons
Estimated Population Supplied ... ..	131,600
Average Consumption (all supplies) ... ..	28 gallons per head per day

## HOUSING.

## (a) GENERAL.

No. of Houses Demolished	...	...	...	...	...	...	...	38
No. of Houses completed and occupied during 1936 :								
(a) By Corporation	...	...	...	...	...	...	...	18
(b) By Private Enterprise	...	...	...	...	...	...	...	328
Action taken in respect of Temporary Buildings	...	...	...	...	...	...	...	<i>Nil</i>
No. of Houses towards which a State Subsidy was paid	...	...	...	...	...	...	...	<i>Nil</i>
No. of Houses in course of Erection at the end of 1936 :								
(a) By Corporation	...	...	...	...	...	...	...	18
(b) By Private Enterprise	...	...	...	...	...	...	...	276
Total No. of Houses within the Borough at 31st December, 1936	...	...	...	...	...	...	...	34929

The Rents of the various Corporation Houses (inclusive of Rates) are as follows :—

Parlour, 3 Bedrooms	...	16/3, 15/9, 15/3,
Non-Parlour, 3 Bedrooms	...	15/6, 15/0, 14/5, 13/4, 10/10,
Non-Parlour, 2 Bedrooms	...	10/9, 10/7, 10/3,
Flats, 2 Bedrooms	...	7/11.

No. of applicants on Waiting List at end of 1936 :—

Parlour, 3 Bedrooms	...	...	...	...	...	...	...	<i>Nil</i>
Non-Parlour, 3 Bedrooms (Large)	13/4	...	...	...	...	...	...	12
Non-Parlour, 3 Bedrooms (Small)	...	...	...	...	...	...	...	82
Non-Parlour, 2 Bedrooms...	...	...	...	...	...	...	...	134

## (b) STATISTICS :

## 1. INSPECTION OF DWELLING-HOUSES DURING THE YEAR :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)...	...	...	...	...	...	4763
(b) Number of inspections made for the purpose	...	...	...	...	...	10219
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	...	...	...	454
(b) Number of inspections made for the purpose	...	...	...	...	...	454
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...	...	14
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation...	...	...	...	...	...	2575

## 2. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers ... ..	1729
--	------

## 3. ACTION UNDER STATUTORY POWERS DURING THE YEAR :—

### A. *Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :*

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ..	343
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—	
(a) By owners ... ..	204
(b) By local authority in default of owners ... ..	47

### B. *Proceedings Under Public Health Acts :*

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... ..	167
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners ... ..	101
(b) By local authority in default of owners ... ..	0

### C. *Proceedings Under sections 19 and 21 of the Housing Act, 1930 :*

(1) Number of dwelling-houses in respect of which demolition orders were made ... ..	0
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ..	4

### D. *Proceedings Under section 20 of the Housing Act, 1930 :*

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made... ..	0
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... ..	0



### INSANITARY DWELLINGS.

During the year the Ministry confirmed Clearance Orders in respect of the Harrison and Chapel Street areas. These properties have since been demolished and their occupants rehoused.

Twenty-nine further areas have been represented for clearance, and it is also proposed to deal with 48 individual dwellings by means of Section 11 of the Housing Act, 1936. It is estimated that satisfactory undertakings will be given to recondition 15 of the latter.

The largest area to be affected by the representations is that in the Water Street and Chapel Street districts, the remaining clearance areas being scattered throughout the town.

The whole programme involves 160 dwellings.

### DISINFESTATION.

During the year 13 Council houses were found to be vermin-infested. These houses (together with attached adjacent houses to the number of 12) were disinfested by means of Hydrogen Cyanide. The bedding of the infested houses was steam-treated.

Fifty privately-owned houses in the Borough have been disinfested by officers of the Health Department, an insecticide spray being used for the purpose after easing the skirtings, architraves, etc. Bedding from nine privately-owned houses was disinfested by steam.

The belongings of tenants removed from Clearance Area houses are subjected to Hydrogen Cyanide disinfestation before transfer to a Corporation house, and the soft materials, such as bedding, are steam-treated.

Insecticides are available on request by tenants of infested houses ; 50 applications for insecticide were received during the year and material was supplied in all cases.

### OVERCROWDING.

The Report for 1935 contained a statement shewing that 383 houses, or 1·09 per cent. of all houses, were overcrowded.

Arising out of the overcrowding survey, the Health and Housing Committees considered the steps to be taken to secure abatement and, in doing so, had regard to 170 privately-owned and empty houses suitable for occupation by members of the working class.

The Property Owners' Association was approached with a view to those houses being offered to the Corporation for decrowding purposes, and the Association agreed to circularise their members to that end.

Since December 31st, 1936, 34 houses have been offered to the Health Department for decrowding purposes. The rents suggested by owners are considered by the Borough Treasurer, who also enquires into the circumstances of prospective tenants and fixes the rents which they may reasonably be expected to pay. Any difference between the rent fixed and the sum which the incoming tenant is able to pay is borne by the Corporation.

Of houses thus offered, 15 have been used for decrowding purposes, 14 were withdrawn, and five transfers are pending.

So far only houses which, by reason of their size (and correspondingly large rents and difficulty in letting) have been offered for decrowding purposes. No family-type houses capable of accommodating domestic units of 4—6 members have been offered, as their owners have no difficulty in letting houses of this size.

The house which falls empty following transfer of an overcrowded family to a larger house should, in theory, become available for decrowding an overcrowded family of smaller size. Practice has not upheld this theory, which is inoperative through the law of supply and demand.

Following our negotiations with the Property Owners' Association, it was hoped that utilisation of privately-owned and empty property might materially, though not completely, solve our overcrowding difficulties. Experience has not sustained this hope and, in consequence, a larger number of Corporation-owned houses will be required for the purpose than was anticipated.

Since the overcrowding census was completed 115 families have become decrowded for the following reasons :—

(a)	Found other accommodation	...	...	...	...	...	70
(b)	Deaths, removals, etc., of members of family or of lodgers	...					45
							<hr/>
						TOTAL	115
							<hr/>

The appended Table gives particulars of overcrowding on December 31st, 1936 :—

(a)	(i)	Number of dwellings overcrowded at the end of the year	...	312
	(ii)	Number of families dwelling therein	... ..	334
	(iii)	No. of persons dwelling therein	... ..	1937½
(b)		Number of new cases of overcrowding reported during the year...		<i>Nil</i>
(c)	(i)	Number of cases of overcrowding relieved during the year	...	71
	(ii)	Number of persons concerned in such cases	... ..	539½
(d)		Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	... ..	<i>Nil</i>

### HOUSING CONDITIONS.

The policy of reconditioning has been continued throughout the year. Up to December 31st, 1936, 1,320 houses have been dealt with, and approximately 200 houses are in the process of reconditioning.

### HOUSES-LET-IN-LODGINGS.

The number (79) of houses-let-in-lodgings is less than in 1935, when 80 such houses were on the register. These houses provide 473 rooms, of which 78% were occupied, compared with 461 rooms, and 73% occupancy in 1935.

### COMMON LODGING HOUSES.

There are 14 Common Lodging Houses in the Borough, which provide accommodation for 523 persons.

In all these houses the domestic conveniences are of a much higher standard than those provided at the majority of houses let in lodgings. Facilities for the storing and preparation of food, for personal ablution, etc., are in most cases satisfactory.

The bye-laws relating to these premises are adequate.

## TENTS, SHEDS, CARAVANS, ETC.

At the end of the year there were 45 caravans in the Borough used as human habitations.

Constant sanitary survey is necessary if the caravans and their surroundings are to be kept in a cleanly and sanitary state.

The general cleanliness of the travelling vans which came to Blackburn during the Easter holidays was satisfactory.

The bye-laws in force are adequate.

## CANAL BOATS ACTS, 1877 AND 1884.

The Corporation of Blackburn, as the Urban Sanitary Authority for the district of the said Borough, beg to report that during the past year they have carried into execution within their district the provisions of the Canal Boats Acts.

- (1) They have maintained in office an Inspector, Mr. Herbert Kenyon, appointed for the execution of the said Acts. Canal boats passing through the district have been regularly examined with a view to ascertaining if the Acts were being carried out.
- (2) Seventy-four canal boats have been examined and reported upon.
- (3) Two infringements of the Acts have come under the notice of the Inspector, namely :—
  - (a) Boat in a leaky condition ;
  - (b) Master without certificate.
- (4) There has been no occasion to take legal proceedings.
- (5) Two Statutory notices have been served notifying the owners of the infringements and the requirements have been carried out in one instance. The other notice has not expired.
- (6) & (7) No case of infectious disease has been met with and there has been no detention of boats for cleansing or disinfection.
- (8) (a) There are 40 boats on the register which are in use or available ;
  - (b) One new boat has been registered ;
  - (c) Two boats have been broken up.
- (10) In the 74 boats met with there were 148 males, five females and 0 children.

## OFFENSIVE TRADES.

The number of offensive trades within the Borough is 27, of which 16 are bone, and rag and bone dealing, four are fat extraction or fat rendering, one is gut-scraping, four are tripe-boiling, and two knackering.

Nuisances arising in connection with offensive trades are influenced by the amount of care exercised in the storage of the raw material and waste products. Careless methods of storage and production have been responsible for the majority of nuisances reported, and attention paid to these details has resulted generally in abatement of the nuisance complained of.

## SANITARY ACCOMMODATION.

1.—*Sanitary Accommodation* :—

Privies	...	...	...	...	...	...	...	...	...	1
Pail Closets	...	...	...	...	...	...	...	...	...	144
Waste Water Closets...	...	...	...	...	...	...	...	...	...	1867
Fresh Water Closets	...	...	...	...	...	...	...	...	...	40343
										<hr/>
TOTAL										<u>42355</u>

*Conversions* :—

Pails by Owners	...	...	...	...	...	...	...	...	...	1
Pails by Corporation	...	...	...	...	...	...	...	...	...	6
Waste Water to Fresh Water Closets :										
By Owners	...	...	...	...	...	...	...	...	...	62
By Corporation	...	...	...	...	...	...	...	...	...	20
Wet Pails by Owners	...	...	...	...	...	...	...	...	...	<i>Nil</i>
Privies to Pails	...	...	...	...	...	...	...	...	...	<i>Nil</i>

2.—*New Sewers* :—

The length of New Sewers laid during 1936 was as follows :—

12-in. diameter	...	...	...	...	...	...	30 lineal yards.
9-in. diameter	...	...	...	...	...	...	321 lineal yards.

*Top water drain in Cemetery*—

12-in. diameter	...	...	...	...	...	...	71 lin. yds.
9-in. diameter	...	...	...	...	...	...	120 lin. yds.

3.—*Lavatory and Urinal Accommodation* :—

The same as last year.



4.—*Collection of Refuse :—*

					<i>Loads.</i>	<i>Tons.</i>	<i>Cwts.</i>	<i>Qrs.</i>
House Refuse	...	...	...	...	14409	25779	6	3
Market Refuse	...	...	...	...	949	991	2	1
Midden Refuse	...	...	...	...	4	1	5	0
Shop and Trade Refuse	...	...	...	...	854	636	6	2

5.—*Ashpit Conversions :—*

No. of Ashpits Abolished	...	...	...	...	...	...	1
No. of Bins substituted in lieu of same	...	...	...	...	...	...	1

*Approximate :—*

No. of Ashbins in use...	...	...	...	...	...	...	37854
No. of Dry Ashpits in use	...	...	...	...	...	...	7
No. of Wet Ashpits in use	...	...	...	...	...	...	1
No. of Excreta Pails in use	...	...	...	...	...	...	153
No. of Tanks in use	...	...	...	...	...	...	7

## SWIMMING POOLS AND BATHS.

There are no privately owned swimming-pools or baths in Blackburn.

Three swimming baths are owned by the Corporation at which the water is treated by continuous filtration and chemicals.

## SCAVENGING AND PUBLIC CLEANSING.

The arrangements for scavenging and public cleansing are similar to those described in the Report for 1933.

## SANITARY INSPECTION OF THE AREA.

The appended Tables classify, in tabular form, inspections carried out by the Sanitary Inspectors during the year, their findings and action taken in respect thereof.

**TABLE 14.****INSPECTION WORK.**

No. of Complaints by Inhabitants	..	..	..	..	..	398
No. of Complaints referred from other Departments	..	..	..	..	..	556

*No. of Nuisances Discovered as Result of:—*

Complaints by Inhabitants	..	..	..	..	..	2767
Visiting Cases of Infectious Diseases	..	..	..	..	..	110
Complaints from other Departments	..	..	..	..	..	550
Notifications of H.M. Inspector of Factories	..	..	..	..	..	14
Routine Inspection Visits	..	..	..	..	..	2417
Housing and Town Planning Inspections	..	..	..	..	..	4037
Visits to Factories and Workshops	..	..	..	..	..	7
Total number of Defects found	..	..	..	..	..	8933
Total number of Defects remedied	..	..	..	..	..	5840
No. of Informal Notices Served	..	..	..	..	..	2575
No. of Formal Notices Served	..	..	..	..	..	504
No. of Informal Notices complied with	..	..	..	..	..	1230
No. of Formal Notices complied with	..	..	..	..	..	305
No. of Interviews	..	..	..	..	..	346
No. of Letters sent out	..	..	..	..	..	66

Particulars of sanitary improvements made and defects remedied under the supervision of the Sanitary Inspectors are contained in the following Table :—

TABLE 15.

## DWELLING HOUSES.

Insufficient closet accommodation	—
Water supply improved	—
Cleansed and limewashed	104
Overcrowding abated	2
Damp and defective house, walls, roofs, etc.	654
Defective gutters and down-spouts	275
Cleansing dirty floors	17
"    "    woodwork	4
"    "    dirty yards	8
"    "    bedding	6
"    "    windows	—
"    "    gully traps	—
"    "    cellar areas	—
Obstructive buildings removed	—
Defective sink waste pipes	194
Defective dishstones	16
Waste pipes disconnected from drain	1
Yards and passages reflagged	67
Yards badly paved or flagged	116
Insufficient lighting and ventilation of rooms	195
Defective chimney flues	70
Window sash frames, cords, stairs, fireplaces, doors, cupboards to be repaired	2418
Dangerous and defective chimney stacks	53
Fractured internal walls	—
Gas pipes repaired	7
Water pipes repaired	76
Yard division walls	53
Defective and bulging external walls	20
Absence of handrails to staircases	239
Outbuildings repaired	193
Washing Accommodation provided	48
Food Cupboards provided	47

## BAKEHOUSES.

Cleansed and limewashed	31
Sanitary accommodation improved	—
Drains repaired	—
Animals removed	—
Other nuisances abated	3

## DAIRIES, COWSHEDS, AND MILKSHOPS.

Reconstructed	—
Dairy	4
Middonsteads	—
Floors repaired	9
Improved Lighting	—
Improved ventilation	1
Improved drainage	—
Cubic space increased	—

DAIRIES, COWSHEDS, AND MILKSHOPS—  
*Continued.*

Internal walls and ceilings repaired	2
Improved yard space	0

## ICE CREAM MANUFACTORIES.

Cleansing and limewashing	135
Sanitary conditions improved	2

## SCHOOLS.

Playgrounds—repairs to drains	—
"    repairs to asphalt	—
"    repairs to paving	—
"    repairs to flags	3
Urinals repaired or improved	—
Sanitary accommodation repaired or improved	1

## WORKSHOPS &amp; WORKPLACES.

Cleansed and limewashed	8
Provided with sufficient sanitary accommodation	—
Sanitary condition improved	1
Ventilation improved	—
Overcrowding abated	—
Drains repaired	—
Other nuisances abated	—

## DRAINS.

Re-layed	53
Cleansed or repaired	111
Intercepting traps provided	—
Soil pipes repaired	8
Self-cleansing gullies provided	26

## WATER CLOSETS.

Cleansed	—
Repaired	59
Cisterns and flushing fittings repaired	88
Provided in substitution of slop-water closets	8

## PAIL CLOSETS.

Nuisance abated	—
Converted from privies	2

## OFFENSIVE TRADES PREMISES.

Limewashed	54
------------	----

## COMMON LODGING-HOUSES.

Cleansed and limewashed	28
Other nuisances abated	1



TABLE 15—(Continued).

OFFENSIVE ACCUMULATIONS.		ASH RECEPTACLES.	
Removed .....	55	Repaired .....	—
		Portable receptacles provided....	413
ANIMALS SO KEPT AS TO BE A NUISANCE.		STABLE PREMISES.	
Nuisances abated .....	4	Removing manure .....	2
		Reconstructed middensteads ....	3
SEWERS.		HOUSES LET IN LODGINGS.	
Cleansed .....	46	Nuisances abated .....	7
SLOP-WATER CLOSETS.		CANAL BOATS.	
Nuisances abated .....	12	Leaky condition .....	1
Converted to W.C.'s .....	80	Cover to water cask provided ..	—
		Boat not registered .....	—
ASHPITS.		Master without Certificates ....	1
Abolished .....	27	Boat not properly marked .....	—
		Unsuitable certificate .....	—
		Water Vessel provided.....	—

## DETAILS OF INSPECTION WORK.

Schools.....	56	Infected Houses .....	916
Tents, Vans, Sheds.....	144	Small Pox Contacts .....	41
Factories .....	23	Housing and Town Planning Acts...	5378
Workshops .....	285	Fishmongers and Greengrocers....	8
Workplaces .....	42	Ashes Receptacles .....	671
Bakehouses—Ordinary .....	—	Food Preparing and Storing Places.	507
Underground .....	—	Outworkers' Premises.....	—
Cowsheds .....	756	Enquiries <i>re</i> Milk Supply .....	22
Dairies and Milkshops .....	3952	Dwelling Houses.....	4963
Ice Cream Premises .....	1364	Samples of—	
Offensive Trade Premises .....	178	Milk purchased for Sediment	
Fried Fish Shops.....	6	Test .....	872
Common Lodging Houses .....	359	Milk Purchased for Chemical	
Stable Premises .....	50	analysis .....	290
Offensive Accumulations .....	55	Milk purchased for bacteriological	
Animals so kept as to be a nuisance	4	analysis .....	329
Sewers .....	46	Labelling of Condensed Milk Tins.	388
Street Gullies .....	129	Insufficient Water Supply.....	1
Canal Boats.....	72	Miscellaneous .....	286
Smoke Observations .....	26	Morehandise Marks Acts .....	3844
Theatres and Cinemas .....	110	Special Inspections <i>re</i> Overcrowd-	
Houses Let-in-Lodgings.....	1332	ing.....	1824
Dirty Houses .....	224	Routine (work in progress) .....	4841
Common Yards, Back Roads and			
Passages .....	1254		

TABLE 16.

## FACTORIES, WORKSHOPS AND WORKPLACES.

## 1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

PREMISES. (1)	NUMBER OF		
	Inspections (2)	Written Notices (3)	Prosecutions (4)
FACTORIES ... .. (Including Factory Laundries)	23	7	...
WORKSHOPS ... .. (Including Workshop Laundries)	285	6	...
WORKPLACES ... .. (Other than Outworkers' premises)	42	...	...
TOTAL ... ..	350	13	...

## 2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS. (1)	Number of Defects.			Number of offences in respect to which prosecut'ns were insti- tuted. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ... ..	3	3	...	...
Want of Ventilation ... ..	...	...	...	...
Overcrowding ... ..	...	...	...	...
Want of drainage of floors ... ..	...	...	...	...
Other Nuisances ... ..	...	...	...	...
<i>Sanitary Accommodation :—</i>				
Insufficient... ..	3	3	...	...
Unsuitable or defective ... ..	4	4	...	...
Not separate for sexes ... ..	4	3	...	...
<i>Offences under the Factory and Workshops Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101) ... ..	1	1	...	...
Other offences ... ..	4	2	...	...
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Trans- fer of Powers) Order, 1921.)				
TOTAL ... ..	19	16	...	...

## FACTORIES AND WORKSHOPS.

### TABLE 17.

This Table contains particulars of matters referred by the Factory Inspector and of action taken by the Health Department in respect thereof :—

#### FACTORIES.

Sanitary Accommodation : The sanitary convenience was in direct communication with the workroom.

Notice was sent, and the convenience, being surplus to requirements, was removed.

Sanitary Accommodation : A sufficient number of conveniences not provided for the females employed in the sewing machine room. The same conveniences were not separated from the workroom by an intervening ventilated space.

Notice was sent and it was complied with satisfactorily.

Sanitation : The sanitary convenience was not separated from the workroom by means of an intervening ventilated space.

Notice was sent and a new water closet was erected in the open air.

Sanitary accommodation : Separate conveniences not provided for persons of both sexes employed.

Notice was sent and an existing w.c. not in use was provided.

Sanitation : The women's sanitary convenience in the machine room was not separated from the workroom by means of an intervening ventilated space.

Notice was sent and the sanitary convenience was satisfactorily disconnected from the workroom.

Sanitary accommodation : No proper fastenings provided on the door of the convenience for females, and the approach was not separated nor screened from the convenience used by men from the adjoining factory.

Notice was sent and the use of the men's convenience was discontinued. Fastenings were fitted and a screen erected.

Sanitary accommodation : Separate convenience not provided for the three females employed.

Notice was sent and new closets were erected on the pail system, owing to a water supply and sewer not being available.

Sanitation : The intervening space between the women's sanitary convenience and the workroom on the third floor was not ventilated.

Notice was sent and ventilation was provided.

TABLE 17—*Continued.*

Sanitary accommodation : The door of one of the women's sanitary conveniences required a bolt.

Bolt fixed on receipt of notice.

Sanitary accommodation : Insufficient number of conveniences provided (three only for 110 employees).

Notice was sent and an additional sanitary convenience was provided.  
(Number of employees under 100).

Sanitary accommodation : Separate conveniences not provided for persons of both sexes employed.

Notice was sent and an additional separate convenience was provided for females.

#### BAKEHOUSES.

Sanitation : Limewashing overdue.

Notice sent—completed.

Sanitation : Limewashing overdue. Notice sent—completed.

Sanitation : Limewashing one month overdue—completed previous to inspection.

#### SMOKE OBSERVATIONS.

During the year 26 smoke observations were made.

The standards of smoke permissible from a factory chimney in Blackburn are as follows :—

One boiler..	..	..	..	4 minutes black smoke in the hour
Two boilers	..	..	..	5     "     "     "
Three boilers	..	..	..	6     "     "     "
Four boilers or more	..	..	..	7     "     "     "

TABLE 18.

## SANITARY ACCOMMODATION IN SCHOOLS, 1936.

SCHOOLS	No. ON ROLLS	No. OF PEDESTAL WATER CLOSETS FLUSHED WITH		No. OF TROUGH CLOSETS TOGETHER WITH No. OF SEATS FLUSHED :		URINALS.		REMARKS.
		Separate Cisterns	Automatic Cisterns	Auto- matically.	By Hand	No. with Sparge Pipes	No. with- out sparge Pipes	
ACCRINGTON ROAD	250	30	—	—	—	14	—	
AUDLEY C.	607	39	—	—	—	20	—	
BANK TOP C.	237	2	—	—	12	6	10	
BANGOR STREET	438	—	26	—	—	18	—	
BLAKEY MOOR C.	665	36	—	—	—	20	—	
CEDAR STREET C.	329	18	—	—	—	16	—	
CHRIST CHURCH C.E.	517	—	18	6	—	15	—	
EMMANUEL C.E.	305	—	—	21	—	—	30	
FURTERGATE C.	232	—	—	14	—	8	—	
FOUR LANES END C.	165	—	8	—	—	—	10	
GRIFFIN C.E.	225	2	12	—	—	6	4	
HOLY TRINITY C.E.	374	1	16	—	—	6	10	
INTACK COUNCIL	414	20	—	—	—	12	—	
LOWER DARVEN C.	88	1	—	9	—	—	5	
MILL HILL C.	259	7	16	—	—	—	20	
MOSS STREET C.	232	2	11	—	—	5	5	
C.E. CENTRAL	627	2	13	—	—	18	—	
PARK ROAD C.	273	13	—	—	—	—	5	
REGENT STREET SPECIAL	15	2	6	—	—	—	3	
ST. AIDAN'S C.E.	249	12	4	—	—	—	10	
ST. ALBAN'S R.C.	822	21	—	—	—	—	10	
ST. ALBAN'S H.G. (Boys)	195	6	—	—	—	—	10	
ST. ANNE'S R.C.	539	3	—	20	—	—	9	
ST. ANDREW'S C.E.	142	—	—	11	—	—	6	
ST. BARNABAS' C.E.	304	—	13	—	—	—	8	
ST. BARTHOLOMEW'S C.E.	174	—	—	13	—	—	12	

TABLE 18—Continued. SANITARY ACCOMMODATION IN SCHOOLS, 1935.

SCHOOLS	No. ON ROLLS	No. OF PEDESTAL WATER CLOSETS FLUSHED WITH		No. OF TROUGH CLOSETS TOGETHER WITH No. OF SEATS FLUSHED :		URINALS.		REMARKS.
		Separate Cisterns	Automatic Cisterns	Auto-matically.	By Hand	No. with Sparge Pipes	No. without sparge Pipes	
ST. GABRIEL'S C.E. ...	119	—	—	7	—	—	4	
ST. JAMES' C.E. ...	172	1	9	—	—	9	—	
ST. JAMES' B.A.M. ...	56	—	3	4	—	8	—	
ST. JAMES' C.E. (GUIDE) ...	69	—	—	10	—	2	6	
ST. JOHN'S C.E. ...	379	—	—	23	—	9	—	
ST. JOSEPH'S R.C. ...	493	—	—	14	—	—	9	
ST. LUKE'S C.E. ...	232	—	16	—	—	—	9	
ST. PETER'S R.C. ...	496	2	25	—	—	17	—	
ST. MICHAEL'S C.E. ...	143	—	—	6	7	12	—	
ST. MATTHEW'S C.E. ...	307	1	—	12	—	—	10	
ST. MARY'S R.C. ...	507	1	—	10	—	4	4	
ST. PAUL'S C.E. ...	315	—	13	—	—	15	—	
ST. PETER'S C.E. ...	135	15	—	—	—	—	15	
ST. STEPHEN'S C.E. ...	218	1	—	21	—	7	7	
ST. SILAS' C.E. ...	332	—	16	—	—	—	12	
ST. THOMAS' C.E. ...	422	—	12	—	—	—	12	
SACRED HEART R.C. ...	147	1	—	7	—	2	2	
WENSLEY FOLD C.E. ...	185	2	8	—	—	12	—	
WITTON (C.E.) INFANTS' ...	47	—	—	6	—	6	—	
ROE LEE PARK ...	294	18	—	—	—	18	—	
JUVENILE UNEMPLOYED TRAINING CENTRE SCHOOLS :								
MAUDSLEY STREET ...	—	1	—	9	—	8	—	
AUDLEY RANGE ...	—	—	—	13	—	9	—	



Particulars regarding the control of infectious disease in, and the water supply of, local schools, have been fully described in previous reports.

#### THE TESTING OF DRAINS.

No. of Smoke Tests	..	..	..	..	..	..	118
No. of Water Tests	..	..	..	..	..	..	33
No. of Colour Tests	..	..	..	..	..	..	97
Breaking Down	..	..	..	..	..	..	34
Inspections made while work was in progress					..	..	705
Total number of Defects found	..	..	..	..	..	..	146
No. of Informal Notices Served	..	..	..	..	..	..	121
No. of Formal Notices Served	..	..	..	..	..	..	23
No. of Defects Completed	..	..	..	..	..	..	139
No. of Defects outstanding at end of 1936	..	..	..	..	..	..	7

#### THE RAG FLOCK ACTS, 1911 & 1928.

There is one premises in Blackburn where rag-flock is used. The flock is not manufactured locally, but is purchased under guarantee of Government Standard of Cleanliness.

The premises concerned have been visited in the course of routine district inspections.

#### DISPOSAL OF THE DEAD.

The arrangements for the disposal of the dead will remain adequate for at least a further ten years.

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*PART III.*

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Food Supply.

REPORT OF THE VETERINARY INSPECTOR, [Blackburn(Mr. E. J. BURNDRED, M.R.C.V.S., D.V.H.). 1936]

## FARM AND DAIRY CATTLE INSPECTION.

During the year 244 visits were made to farms; 430 cowsheds were inspected, and the udders of 5,804 cows examined.

Four cows on three farms in the Borough were found to be affected with tuberculosis of the udder. They were all slaughtered and, on post mortem examination, were classed as advanced tuberculous.

Two cases of tuberculosis with cough were slaughtered and, on post mortem examination, the disease was found to be advanced, but neither of the carcasses showed lesions in the udder.

Two cases of tuberculous emaciation were dealt with. They were both cows; they were slaughtered and post mortem examination showed advanced tuberculous.

Twenty-three cows were found to be affected with mastitis in one or more quarters of the udder, and in these cases the milk was not used for human consumption during the affection.

## DAIRIES, COWSHEDS AND MILKSHOPS.

Regular visits were paid to all producing and retailing premises in Blackburn, and many visits were paid, in conjunction with, and by the courtesy of, the local officials to milk producing premises outside the Borough which supply milk for consumption in the Borough. It appears that nothing short of compulsion will convince many of the producers of the necessity for steam in the sterilisation of utensils.

## CLEAN MILK COMPETITION.

There are four classes of competitors for the Clean Milk awards.

A silver eup is awarded in each class, and this is held by the winner for one year. He also receives a miniature eup and gold medal which he retains.

Class I is open to producers of raw designated milks purveyed in Blackburn. The award in this class is the "Redmayne" Cup. The winner for 1936 was A. THRELKELD, HATCHWOOD FARM, HOUGHTON.

Class II is open to producers of non-designated milks purveyed in Blackburn. The award in this class is the "Porritt" Cup. The winner for 1936 was R. WADE, LOW FARM, CLAYTON-LE-DALE.

Class III is open to producers of designated milks whose main source of livelihood is dairy farming. A trophy is awarded for the best farm, and this is the "Burke" Cup. The winner for 1936 was J. W. SEDGWICK, ELSWICK FARM, MELLOR.

Class IV is for the best undesignated dairy farm under the same conditions as Class III. The winner for 1936 was F. HOULDSWORTH, DODDS FARM, SAMLESBURY.

Mr. John Redmayne, who, from the inception of the Competition, has always taken the greatest interest, and who kindly gave the "Redmayne" Cup for competition in Class I, consented to take the place of the late Arthur Holgate, and now acts as Judge in Classes III and IV.

#### MILK (SPECIAL DESIGNATIONS) ORDER, 1936.

This Order, which came into force on June 1st, 1936, revoked the Milk (Special Designations) Order, 1923, and there are now three main grades: Tuberculin Tested, Accredited, and Pasteurised. In addition, the "Tuberculin Tested" may be pasteurised; it is then officially known, and must be labelled as "Tuberculin Tested Milk (Pasteurised)."

The "Tuberculin Tested Milk" is milk from cows which have passed a veterinary examination and a tuberculin test. It may be bottled at the farm or elsewhere; and it may be pasteurised, as stated above, or raw. Producers of this grade are outside the control of the Milk Marketing Board.

The "Accredited Milk" is raw milk from cows which have passed a veterinary examination. It may be bottled on the farm or elsewhere. This grade of milk is recognised by the Milk Marketing Board, and all producers who obtain a licence from the Local Authority receive a bonus of one penny per gallon for all milk produced. This bonus has proved a great incentive to farmers; much improvement, both in methods and equipment, has taken place.

After 12 years' operation of the Milk (Special Designations) Order, 1923, the number of Grade A Milk (which is similar to Accredited Milk) Producers was only 800. Since the 1936 Order became operative the latter number has risen in England and Wales to the satisfactory figure of 20,000 Accredited Producers.

" Pasteurised Milk " is milk which has been retained at a temperature of not less than 145° F. and not more than 150° F. for at least 30 minutes, and immediately cooled to a temperature of not more than 55° F.

The Ministry of Agriculture and Fisheries has formulated a scheme which has as its ultimate aim the eradication of tuberculosis from the bovine population of this country. It is called the Tuberculosis (Attested Herds) Scheme, England and Wales.

The Ministry tuberculin test those herds which have had no reactors to the tuberculin test on the last two six monthly tests, and if they find no reactors, they issue a Certificate of Attestation.

The scheme is thorough, and as a consequence, growth is slow, but it is the first real attempt at eradication of bovine tuberculosis in this country, and therefore deserving of every help and encouragement.

Blackburn has been able to help and encourage a producer who is at present the only one to receive a certificate of Attestation in Lancashire. Milk from this producer is retailed in Blackburn, and the whole of the supply at the Infectious Diseases Hospital and the Maternity Hospital is obtained from the same herd.

*Tuberculin Tested Milk.*—As stated, tuberculin tested milk is used at the Corporation Infectious Diseases Hospital and the Maternity Hospital. The same producer retails in Blackburn.

Milk from another tuberculin tested herd is sold by a retailer.

*Accredited Milk.*—It is difficult to give a correct estimate of the number of accredited producers supplying milk to Blackburn, as a person may be an accredited producer and supply the milk wholesale to a dairy. There are, however, 17 accredited producers in the district supplying milk for retail trade, and six of these are in the Borough. There are also 12 dairymen who retail Accredited Milk. The number of Accredited Producers supplying milk to dairies in the Borough is 20.



*Pasteurised Milk*.—Two dairies in the Borough are licensed for the pasteurisation of milk. The local Co-operative Society is a member of a joint dairy situated a few miles from Blackburn. Other dairies also obtain supplies from licensed establishments outside Blackburn.

*Sterilised Milk* is not a designated milk, but it is now largely used. A number of factories outside, in addition to two dairies in the Borough, cater for this trade.

*Tubercle Bacilli*.—Three hundred and twenty-six samples of milk were taken and examined for the presence of tubercle bacilli. The samples were made up as follows :—Three hundred and two mixed samples were taken in the course of delivery ; eight samples were taken from the udders of cows showing some abnormality of the udder ; and 16 samples were control samples.

Of the 302 samples taken, 10 contained tubercle bacilli ; 287 were negative ; and in five cases the experimental animal died before a definite diagnosis could be made. Four special samples were positive, and four were negative.

The 10 mixed samples which contained tubercle bacilli were from eight farms in the County area, and two farms in the Borough.

The first sample, from a farm in the Borough, a cow was found which was eliminating tubercle bacilli in the milk, and this cow was slaughtered.

A control sample of milk was also tubercular, and a further cow was found which, on post mortem examination, showed early and very active lesions of tuberculosis.

The second sample, also from a farm in the Borough, no cow showing any clinical symptoms was found, but a cow which was rapidly wasting had been sent away a fortnight previously. Control samples, however, were positive, and after further examinations of the herd, a cow affected with tuberculosis of the udder was discovered and slaughtered.

The eight samples from the County area were reported as follows :—

(1) Three cows with tuberculosis of the udder were discovered and slaughtered. A prosecution in connection with one of the cows led to a fine of £10 and costs.

(2) One cow with tuberculosis of the udder was found and the owner was fined £10 and costs for not reporting.

- (3) One cow with tuberculosis of the udder was found and was slaughtered.
- (4) One cow with tuberculosis of the udder was found and was slaughtered.
- (5) One cow with tuberculosis of the udder was found and was slaughtered.
- (6) No tuberculous cows were found and all samples were negative.
- (7) One cow with tuberculosis of the udder was found and was slaughtered.
- (8) One cow with tuberculosis of the udder was found and was slaughtered.

Two reports from other Authorities were received, one of tuberculosis in a sterilised milk ; and one in milk from a farm in the Borough. In the first case the milk came from a dairy in Blackburn. All the cattle from farms in Blackburn and the West Riding supplying the dairy were examined, and in the West Riding one cow affected with tuberculosis of the udder and one cow with pulmonary tuberculosis were slaughtered.

In the Lancashire County Council Area control samples were taken and one was returned as positive but no infected cow was discovered.

One of the County positive samples above was from a farm supplying this dairy, and a cow was discovered there.

In the second case a cow with tuberculosis of the udder was discovered and slaughtered.

Of the four positive special samples, one was from the above case ; two were at one farm in the Borough ; and the fourth was from a cow found during routine dairy inspection.

Mixed samples of milk supplied to the Royal Infirmary and the Corporation Hospitals were taken periodically and examined for the presence of tuberculosis.

On one occasion the supply to the Royal Infirmary was tuberculous, and on examination, one of the cows reported above in connection with a County supply, was dealt with.

*Milk in Schools Scheme.*—Approximately 3,068 pints of milk are consumed daily in schools in Blackburn.

*Milk in Mills.*—Milk is being supplied for consumption by the workpeople to 27 mills or workshops in Blackburn and 19 factories outside Blackburn, from a dairy in the Borough.



*Consumption of Milk per head of the Population.*—According to reports received, 7,743 gallons of milk are sold in Blackburn daily. Taking the population as 118,200, this gives 0.52 pint of milk per day per head of the population.

*Butter.*—Three dairies in the Borough regularly make butter and are registered under the Food and Drugs (Adulteration) Act, 1928.

*Cheese.*—One dairy carries out the manufacture of cheese on an extensive scale, and has great demand for its product.

#### BACTERIOLOGICAL EXAMINATION OF MILK.

##### (a) *B. Coli*.

Three hundred and nineteen samples of milk were submitted to the Bacteriologist City Laboratories, Liverpool, and the University School of Animal Pathology. The following is a summary of the results :—

##### *Bacillus Coli Content :—*

Not found in 1 cubic centimetre	..	..	..	..	..	..	114
Found in 1 c.c. only	..	..	..	..	..	..	62
„ 0.1 c.c.	..	..	..	..	..	..	40
„ 0.01 c.c.	..	..	..	..	..	..	37
„ 0.001 c.c.	..	..	..	..	..	..	66

The presence of *B. Coli*, or a member of its group, is evidence of manurial contamination of the milk.

The above results show 35.73% clean ; 31.99% with slight contamination ; and 32.28% grossly contaminated.

The appended table gives particulars of *B. Coli* counts month by month. The heaviest contamination appears to be in June, July, August and September, when the cows are at grass, and November, when the cows are at grass in the

daytime and housed at night. The latter is a particularly difficult time as, usually, the cows are grazing on second crop, which is laxative, and as a result the faeces are more fluid than usual.

**TABLE 19.**

1936	Not Present in 1-C.C.	Present in 1-C.C.	Present in 1/10 C.C.	Present in 1/100 C.C.	Present in 1/1,000 C.C.
January ..	4	1	2	3	3
February ..	2	4	3	2	1
March ..	33	11	2	2	7
April ..	3	5	..	4	1
May .	4	3	1	1	5
June .	23	11	6	5	11
July .	5	..	..	4	9
August .	2	..	..	3	9
September .	2	..	..	4	10
October .	20	11	12	7	4
November ..	1	4	2	2	4
December ..	15	12	12	..	2
TOTAL ..	114	62	40	37	66

#### EXAMINATION OF MILK FOR DIRT.

Samples of milk examined for dirt are filtered through cotton wool discs, and these are then dried and mounted. They are then available for records and for demonstration to the producers.

Letters are sent to purveyors of contaminated milk, and wherever possible, visits are paid to the producing premises.

There is a very good and helpful liaison between this Department and the various local sanitary departments.

During the year 832 samples of milk were taken and examined for the presence of dirt. One hundred and fifty-six of these samples were from producer retailers whose premises are in the Borough. They were classified as follows :—

Clean	...	...	...	...	...	62 or 39.74%
Fairly Clean	...	...	...	...	...	81 or 51.92%
Contaminated	...	...	...	...	...	9 or 5.76%
Grossly Contaminated	...	...	...	...	...	4 or 2.56%

Four hundred and twenty-nine samples were taken from producer retailers whose premises are in the County Area.

Clean	...	...	...	...	...	187 or 43.58%
Fairly Clean	...	...	...	...	...	167 or 38.92%
Contaminated	...	...	...	...	...	58 or 13.52%
Grossly Contaminated	...	...	...	...	...	13 or 3.03%
Very Grossly Contaminated	...	...	...	...	...	4 or 0.93%

Thirty-one samples were taken from retailers who reside in the Borough, but who obtain their supplies from producers whose premises are, for the most part, outside the Borough.

Clean	...	...	...	...	...	8 or 25.8%
Fairly Clean	...	...	...	...	...	18 or 58.06%
Contaminated	...	...	...	...	...	5 or 16.1%

Fifteen samples were taken from retailers whose premises are outside the Borough.

Clean	...	...	...	...	...	8 or 53.33%
Fairly Clean	...	...	...	...	...	4 or 26.66%
Contaminated	...	...	...	...	...	3 or 20.00%

Two hundred and one samples were taken from wholesale producers at the dairies supplied by them before the milk was handed over.

Clean	...	...	...	...	...	7 or 3.48%
Fairly Clean	...	...	...	...	...	112 or 55.72%
Contaminated	...	...	...	...	...	65 or 32.33%
Grossly Contaminated	...	...	...	...	...	15 or 7.46%
Very Grossly Contaminated	...	...	...	...	...	2 or 0.99%

#### CHEMICAL ANALYSIS.

Two hundred and ninety samples of milk, 240 of which were informal, were taken during the year and examined at the Public Health Laboratory, Liverpool. Fifteen samples, or 5.17% were reported not to conform with the standard prescribed by the Ministry of Agriculture. If an informal sample proves not to be genuine on analysis, a formal sample is purchased and submitted to the analyst.

TABLE 20.

AVERAGE COMPOSITION OF MILK SOLD IN BLACKBURN,  
YEAR 1936.

MONTH	No. of Samples Taken.	% of Fat	% of other Solids.
January .. .. .	48	3·73	8·87
February .. .. .	13	3·45	8·94
March ... .. .	13	3·59	8·73
April ... .. .	53	3·60	8·89
May ... .. .	12	3·99	9·01
June ... .. .	12	4·02	8·95
July ... .. .	43	3·79	9·27
August ... .. .	13	3·85	9·05
September ... .. .	47	3·82	9·22
October ... .. .	12	4·48	9·24
November ... .. .	12	4·24	9·09
December ... .. .	12	4·75	9·16
Average ... .. .	290	3·94	9·04

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS)  
REGULATIONS, 1925.

No action was necessary with regard to tuberculous employees in the Milk Trade.

THE PUBLIC HEALTH (CONDENSED MILK) REGULATIONS,  
1923 & 1927.

Fifteen samples were purchased under the above regulations. Two were found, on analysis, to be deficient in milk solids. All were properly labelled.

These samples are included in Table 29, Food and Drugs (Adulteration) Act.

## THE ARTIFICIAL CREAM ACT, 1929.

No action has been taken under the above Act.

## THE PUBLIC HEALTH (DRIED MILK) REGULATIONS, 1923 & 1927.

No action has been taken under the above Regulations.

### FOOD PREPARING PREMISES.

#### SECTION 80 BLACKBURN CORPORATION ACT, 1922.

This Section reads as follows :—

“ Any premises ordinarily used, or proposed to be ordinarily used, for the preparation or manufacture of sausages, pressed, potted or preserved meat, fish or other food, intended for the purposes of sale, shall be registered by the owner or occupier thereof with the Corporation from time to time in such manner as they may direct, and no premises shall be used for the purposes aforesaid unless the same are so registered, and the Corporation shall have power to refuse registration of any premises where the conditions are unsuitable.”

There are 46 premises registered under the above section, and in addition there are a large number of food preparing premises which are exempt from registration.

Five hundred and seven visits were made to such premises. Generally they were found to comply with requirements.

In certain cases, the necessity for repairs was pointed out, and in other cases suggestions for improvements were made and in all cases improvements were effected.

### DISEASES OF ANIMALS ACTS & ORDERS.

*Foot and Mouth Disease.*—There were 67 outbreaks in Great Britain, necessitating the slaughter of 5,114 animals. There were no outbreaks in the vicinity of Blackburn.

*Anthrax.*—There were 468 outbreaks confirmed in Great Britain affecting 549 animals.

The dressed carcase of a pig with the pluck only, was sent to the Abattoir for inspection, before being received at a food preparing establishment. Examination of the carcase showed signs of disease and blood examination revealed Anthrax bacilli. The carcase was cremated at the Audley Destructor,



and the Police of the area from which the carcase had been brought were notified. The owner and the person who slaughtered the pig were prosecuted. The owner was fined £2, £1 and costs, and the slaughterer was fined £3.

Routine microscopical examination of blood smears from carcasses of animals arriving at the Abattoir and Railway Siding in a dead or dying conditions was carried out. No cases of anthrax occurred.

*Glanders*.—No cases of this disease have occurred in this country since 1928.

*Rabies*.—No cases of this disease have occurred in this country since 1922.

*Sheep Scab*.—No cases occurred in Blackburn, but the surrounding districts of Lancashire and the West Riding were intensively combed. There were 249 outbreaks in Great Britain.

*Parasitic Mange*.—No cases occurred in Blackburn. There were 111 outbreaks in Great Britain, involving 254 animals.

*Swine Fever*.—The deaths of four pigs were investigated by officials of the Ministry of Agriculture, but Swine Fever was not found.

One carcase of a consignment of pigs sent to the Abattoirs was found to be affected with Swine Fever. The carcase was cremated at the Audley Destructor and the Abattoirs premises disinfected.

One thousand eight hundred and seventy-three outbreaks were confirmed in Great Britain.

*Tuberculosis*.—Four cows affected with tuberculosis of the udder ; two cases of clinical tuberculosis with cough ; and two cases of tuberculous emaciation were dealt with. On post mortem examination they were all classed as advanced.

## POULTRY DISEASES.

*The following extracts are taken from a Memorandum issued by the Ministry of Agriculture and Fisheries.*

Under the Diseases of Animals Act, 1935, the Minister of Agriculture and Fisheries had powers conferred on him for the control of contagious diseases of Poultry in Great Britain.

In determining the nature of the action to be taken, it was necessary to take into consideration the practical effect on the industry of compulsory measures by way of notification entailing veterinary examination and consequential restrictions on the movement of birds from infected premises and areas.

In view of the prevalence among poultry stocks of certain diseases such as fowl pox, bacillary white diarrhoea, fowl typhoid, tuberculosis, and of ecdiosis, and the other parasitic infestations, and also, to a less extent, of fowl cholera and contagious bronchitis (laryngo-tracheitis), any attempts at compulsory measures would unduly interfere with the normal business of poultry keepers.

These diseases will, therefore, not be made compulsorily notifiable, nor is such action considered necessary to secure the control of the diseases mentioned in view of the voluntary methods now available. These diseases will, consequently be dealt with as at present, by the issue of advisory leaflets, and through the work of existing educational institutions, supplemented, where necessary, by enquiries and advice by the Veterinary Inspectors of the Ministry.

*Fowl Pox, Fowl Typhoid, Bacillary White Diarrhoea.*—Vaccines are available for fowl pox and fowl typhoid, and a reliable blood test has been established for fowl typhoid and for bacillary white diarrhoea.

*Avian Tuberculosis.*—Measures of control are also available for this disease, including the use of the tuberculin test for diagnosis.

*Fowl Cholera.*—Any cases of Fowl Cholera in England and Wales which come to the knowledge of the Ministry are notified to the Veterinary Investigation Officers, who advise the owners.

*Contagious Bronchitis (Laryngo-tracheitis).*—A number of independent and widely scattered outbreaks of this disease have been discovered in England since the beginning of 1935. Where cases of the disease are brought to the notice of the Ministry it is proposed to follow the same procedure as for fowl cholera.

Having regard to the conditions under which the poultry industry is carried on at the present time in Great Britain, legislative action is directed to three main purposes, namely :

(1) Provision for dealing with the serious exotic diseases which, if allowed to spread, might have disastrous consequences to the industry. The only diseases at present coming within this category are those included in the term fowl pest (includes fowl plague and Newcastle disease). The disease is being made compulsorily notifiable by the Fowl Pest Order of 1936.



(2) The control of the importation of live poultry, and of eggs intended for hatching, to prevent the introduction of fowl pest, and also of contagious bronchitis and the virulent forms of fowl cholera.

An order with this object in view has been made, entitled *The Poultry and Hatching Eggs (Importation) Order of 1936*.

(3) The prevention, as far as may be practicable without unduly interfering with the poultry trade, of the spread of infection at markets, and through the agency of poultry receptacles. It is not considered a practicable proposition effectively to prohibit the exposure of diseased poultry at markets partly on account of the administrative difficulties involved, and partly because of the objection of the poultry industry as a whole to official interference in the case of the commonly existing poultry diseases.

Action is therefore being limited to the compulsory cleansing and disinfection after each occasion of use of market pens and receptacles used for poultry. These requirements are imposed by the *Poultry Markets and Receptacles (Disinfection) Order of 1936*.

*Tuberculosis in Poultry*.—The losses in the poultry industry from this disease must be enormous. The Ministry of Agriculture have not made it a scheduled disease, but they have issued advice in pamphlets, and the disease can be detected with Tuberculin as in cattle.

## THE WARBLE FLY AND CATTLE.

The warble fly attacks cattle and the larvæ cause considerable damage to the hides. The annual loss from damaged hides is put at about £500,000, and there is always a considerable area on the carcase around each larva which has to be trimmed away. The flies lay their eggs from May to August. They are laid chiefly on the legs of the cattle. In four or five days the maggots are hatched and bore their way through the skin, and after wandering through the system they reach the walls of the gullet, whence, after a while, they continue their wandering, and begin to appear under the skin on the back of the animal, sometimes as early as November and December, but much more frequently from January onwards. Here they grow and lie in small swellings, feed on the tissues, and breathe through the holes which they pierce through the hide. The larva later works itself out and falls to the ground, and in about six weeks the fly emerges. It has been found effective to dress the skins of the affected cattle with certain dressings monthly, from March to June. The Ministry of Agriculture have, therefore, issued *The Warble Fly (Dressing of Cattle) Order of 1936*, which makes it compulsory to dress infected cattle with a dressing which conforms to a specification laid down.

*Diseases of Animals (Importation of Therapeutic Substances) Order of 1936.*

—This Order controls the landing of certain therapeutic substances for Veterinary use. The landing in Great Britain from any other country of contagious abortion vaccine, live or dead, may be licensed under conditions which the Minister considers necessary to prevent the introduction or spread of disease.

## CATTLE MARKET.

The approximate number of animals exposed for sale was :—

TABLE 21.

<i>Year</i>	<i>Cattle.</i>	<i>Sheep.</i>	<i>Calves.</i>	<i>Pigs.</i>	<i>Horses</i>	<i>Asses.</i>
1936	3470	2512	2844	1142	...	...
1935	3242	1622	2713	724	83	...
1934	3407	2375	1478	327	7	...
1933	3553	2975	1276	512	9	...
1932	4541	5558	1721	781	34	...
1931	4885	6260	2183	1244	11	...
1930	6965	8869	2037	573	17	...
1929	6947	9552	2291	966	19	...
1928	6432	5655	2041	1045	19	...
1927	9960	9922	2675	1333	...	21
1926	8092	7410	2285	930	20	...
1925	7171	6962	2346	486	23	...
1924	5609	5608	3493	620	24	...
1923	7716	10026	3040	721	35	...

## MEAT INSPECTION.

The disease which causes most anxiety to the members of the Meat Industry is tuberculosis. It is constantly being revealed in animals which have been bought as healthy, with consequent loss, which is not insured against, and which is unsuspected.

The number of susceptible animals (cattle, calves, pigs) affected with tuberculosis during 1936 was 987, or 5·71%.

Corresponding percentages were : 1935, 4·98% ; 1934, 4·1% ; 1933, 3·1% ; 1932, 3·35% ; 1931, 3·43% ; 1930, 2·38% ; 1929, 2·22% ; 1928, 2·9% ; 1927, 2·079% ; 1926, 2·15% ; 1925, 1·83% ; 1924, 1·87%.

Of 941 cows slaughtered, 213, or 22·63%, were found to be affected with tuberculosis in some degree.

Of 433 heifers, 20, or 4·6%, were affected.

Of 1,676 bulls, 128, or 7·6%, were affected.

Of 4,883 bullocks, 54, or 1·1%, were affected.

Out of 2,000 calves none were found to be affected with tuberculosis.

Of 7,350 pigs slaughtered, 572, or 7·7%, were affected. The percentage for pigs in 1935 was 7·7 ; in 1934, 5·6% ; in 1933, 2·5%.

The number of carcasses in which the disease was so advanced as to necessitate total condemnation was 115, compared with 129 in 1935 ; 89 in 1934 ; 80 in 1933 ; 84 in 1932 ; 90 in 1931 ; 68 in 1930 ; 84 in 1929 ; 111 in 1928 ; 107 in 1927 ; 107 in 1926 ; 69 in 1925 ; and 85 in 1924.

In 1936, 77 carcasses of cattle were totally condemned as being unfit for human food, and of these, 71 were affected with tuberculosis.

There was a further slight improvement with regard to fluke infestation of livers. The number of livers condemned was 4,718, compared with : 4,808 in 1935 ; 6,195 in 1934 ; 7,741 in 1933 ; 9,019 in 1932 ; 6,579 in 1931 ; 5,247 in 1930 ; 6,249 in 1929 ; 6,042 in 1928 ; and 3,836 in 1927.

Regular visits were made during the year to the one private slaughter-house in the Borough ; to butchers and other meat shops ; to food preparing premises ; to the wholesale and retail fish markets ; and to the meat market.

There was a decline in the number of animals slaughtered at the Public Abattoirs. There is a growing tendency for retail meat purveyors to go to Liverpool to buy their meat instead of slaughtering at the Abattoirs, or buying from the wholesalers there ; the old type of butcher, who knew the live animal, is apparently dying out and giving place to the shop-keeper ; but this is not good for Blackburn.

Every endeavour is being made to bring new industries to Blackburn, and our own traders are allowing an old industry, which is of vital importance, to die out.

*Cattle Industry (Emergency Provisions) Act.*—The Public Abattoir is approved as a dead weight centre for the slaughter of animals on a dead weight basis for subsidy under the above Act. Your Veterinary Officer is the Certifying Officer, with Mr. Goodman the assistant meat inspector as Deputy.

During the year 1936, 233 animals were examined and passed for subsidy.

## FISH.

Blackburn is a very important centre for fish supplies; the amount offered for sale in the Borough varying, according to the season, from 60 to 80 tons weekly. If one excludes Liverpool, Manchester and Fleetwood, this probably puts Blackburn at the head of other Lancashire towns.

Supplies are drawn chiefly from Fleetwood, Milford Haven, Swansea, Hull and Aberdeen, and includes wet and dry fish and shell fish.

A large proportion of the fish arriving in Blackburn is sold wholesale, to be retailed in towns and other areas surrounding.

The wholesale fish siding is attended most days by an Inspector, and samples of shell-fish are taken at frequent intervals. Since the war supplies of shell-fish, mainly mussels and cockles, have been gradually curtailed, chiefly as the result of adverse bacteriological reports. Mussels are now being received only from shell-fish purification centres at Lytham and Conway. At these centres cleansing tanks have been erected which makes the mussels treated safe for human consumption. Mussels treated in this way have been on sale in Blackburn since September, 1935, and more could be sold if deliveries could be guaranteed, whereas tides, rough weather, frost, etc., have a definite bearing upon present supplies.

TABLE 22.

NUMBER OF ANIMALS SLAUGHTERED AT THE PUBLIC ABATTOIR.

1936.	Beasts	Sheep	Calves	Pigs	Goats	Total
January .. ..	906	5899	197	1012	..	8014
February .. ..	700	4519	136	708	..	6063
March .. .. .	617	4083	197	581	..	5478
April .. .. .	654	4302	166	524	..	5646
May .. .. .	718	5575	104	455	..	6852
June .. .. .	501	4979	79	258	..	5817
July .. .. .	605	6016	129	274	..	7024
August .. .. .	540	5160	131	282	..	6113
September .. ..	549	5147	182	370	..	6248
October .. .. .	779	5904	274	985	..	7942
November .. ..	696	4708	198	747	..	6349
December .. ..	668	4246	207	1154	..	6275
<b>TOTAL .. ..</b>	<b>7933</b>	<b>60538</b>	<b>2000</b>	<b>7350</b>	<b>..</b>	<b>77821</b>



NUMBER OF CARCASSES AND PORTIONS OF CARCASSES  
BROUGHT TO THE ABATTOIR.

TABLE 23.

1936.	CARCASSES.			BEEF		
	Beef	Mutton	Pork	Fore Qrs.	Hind Qrs.	Buttocks
January .. ..	...	30	35	...	...	...
February .. ..	...	24	19	...	...	...
March .. .. .	...	24	12	...	...	...
April .. .. .	...	...	...	17	24	...
May .. .. .	...	...	10	31	29	...
June .. .. .	...	24	...	28	28	...
July .. .. .	...	...	...	29	29	...
August .. .. .	...	24	...	29	29	...
September .. ..	...	24	5	25	25	...
October .. .. .	...	...	7	27	27	...
November .. ..	...	...	...	26	26	...
December .. ..	...	...	...	20	20	...
TOTALS	...	150	88	232	237	...

1936.	CASES OF			Lengths of Pork	Legs of Pork	Tins of Meat
	Kidneys	Pork	Liver			
January .. .. .	10	...	...	85	...	...
February .. .. .	8	...	...	30	...	...
March .. .. .	8	...	...	30	...	...
April .. .. .	8	...	...	5	...	...
May .. .. .	10	...	...	...	...	...
June .. .. .	...	...	...	...	...	...
July .. .. .	10	...	...	...	...	...
August .. .. .	8	...	...	...	...	...
September .. ..	8	...	...	...	...	...
October .. .. .	10	...	...	40	...	...
November .. ..	8	...	...	36	...	...
December .. ..	8	...	...	100	20	...
TOTALS ..	96	...	...	326	20	...

**TABLE 24.**  
**ORGANS AND PARTS OF CARCASSES EXAMINED, REJECTED AND DESTROYED, FOR DISEASES OTHER THAN TUBERCULOSIS.**

Disease or Condition	Diaphragm	Tongues	Heads	Lungs	Hearts	Livers	Stomachs	Udders	Intestines	Kidneys	Tails	Lbs. of Meat
Fluke ..	..	..	..	..	..	4718	..	..	..	..	..	..
Cirrhosis ..	..	..	..	..	..	185	..	..	..	..	..	..
Angioma ..	..	..	..	..	..	73	..	..	..	..	..	..
Unsound ..	..	..	5	15	..	4	1	13	..	1	..	621
Abscesses ..	..	..	12	..	..	18	16	..	..	..	..	..
Actinomycosis ..	..	..	8	..	..	..	..	165	..	..	..	..
Mammitis ..	..	..	..	..	..	..	..	..	..	..	..	..
Parasitic ..	..	..	..	143	..	205	..	..	2	42	..	..
Nephritis ..	..	..	..	..	..	..	..	..	..	22	..	..
Bruised ..	..	..	..	..	..	..	..	..	..	..	..	2246
Congested ..	..	..	..	..	..	..	..	..	..	..	..	..
Pericarditis ..	..	..	..	..	83	..	..	..	..	..	..	..
Pneumonia ..	..	..	..	75	..	..	..	..	..	..	..	..
Melanosis ..	..	..	1	..	..	2	..	..	..	..	..	..
Endocarditis ..	..	..	..	..	..	..	..	..	..	..	..	..
Fatty Degen'n... ..	..	..	..	..	..	..	..	..	..	..	..	..
<b>TOTAL ..</b>	<b>—</b>	<b>—</b>	<b>26</b>	<b>233</b>	<b>83</b>	<b>5205</b>	<b>17</b>	<b>178</b>	<b>2</b>	<b>65</b>	<b>—</b>	<b>2867</b>



**TABLE 25.**  
DISEASED CARCASSES EXAMINED, REJECTED AND DESTROYED FOR DISEASES, ETC.,  
OTHER THAN TUBERCULOSIS.

## CARCASSES.

BEEF.	MUTTON.		VEAL.		PORK.		GOAT.		VENISON.	
	No.	DISEASE.	No.	DISEASE.	No.	DISEASE.	No.	DISEASE.	No.	DISEASE.
Congested .....	2	Congested .....	23	Immature .....	56	Lymphadenoma	1			
Osteomyelitis ..	1	Oedematous ..	30	Joint Ill .....	10	Toxaemia .....	1			
Johnes Disease	1	Pneumonia .....	6	Congested .....	9	Oedematous ..	2			
Extensively		Emaciation .....	2	Oedematous ..	2	Peritonitis .....	14			
Bruised .....	1	Pyæmia .....	5	Pneumonia .....	1	Septic Pneum'a .	5			
Septic Synovitis	1	Asphyxia .....	53	Jaundice .....	28	Swine Fever ..	1			
		Arthritis .....	5	Staggers .....	2	Swine Erysipelas	4			
		Extensively		Pyæmia .....	8	Congested .....	2			
		Bruised .....	3	Septicaemia .....	1	Pyæmia .....	1			
		Parturition .....	1	Extensively		Rachitis .....	10			
		Parasitic .....	15	Bruised .....	1	Extensively				
		Septic Mammitis	1	Peritonitis .....	1	Bruised .....	1			
		Septic Metritis	1	Mucoid		Jaundice .....	2			
		Nephritis .....	1	Degeneration	1	Arthritis .....	2			
		Unsound .....	1	Scour .....	1	Septicaemia .....	1			
		Mucoid				Anthrax .....	1			
		Degeneration	1							
		Septicaemia .....	1							
	6		149		121		48			

TABLE 26.

## TUBERCULOUS CARCASSES EXAMINED AND REJECTED.

	Cows		Heifers		Bulls		Bullocks		Calves		Sheep		Pigs		Fowl	Totals	
	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected		Examined	Rejected
1936																	
January ..	23	5	..	..	9	..	5	2	..	..	..	..	74	5	10	121	22
February ..	18	3	..	..	11	..	5	..	..	..	..	..	62	4	11	108	19
March ..	15	4	..	..	11	..	5	1	..	..	..	..	55	2	11	100	20
April ..	14	2	..	..	8	..	8	1	..	..	..	..	50	8	9	90	21
May ..	13	3	..	..	7	..	6	1	..	..	..	..	29	3	4	63	14
June ..	19	4	..	..	11	..	7	..	..	..	..	..	29	3	..	67	9
July ..	21	6	..	..	14	..	6	..	..	..	..	..	23	2	2	66	11
August ..	10	2	..	..	15	..	2	..	..	..	..	..	30	1	7	64	11
September ..	20	5	..	..	8	..	1	..	..	..	..	..	31	4	2	65	12
October ..	25	6	..	..	17	..	5	1	..	..	..	..	55	8	7	113	23
November ..	18	6	..	..	10	..	..	..	..	..	..	..	68	1	1	98	10
December ..	17	4	..	..	7	..	4	..	..	..	..	..	66	3	6	102	13
Totals ..	213	50	20	9	128	6	54	6	..	..	..	..	572	44	70	1057	185



TABLE 28.

## FISH, RABBITS, ETC., EXAMINED, REJECTED AND DESTROYED.

## FISH :

Lobster... ..	1	Potatoes ... .. (cwt.)	1
Bags of Shrimps... ..	5	„ ... .. (skips)	15
Tins ... ..	31	Boxes of Peaches ... ..	11
Bags ... ..	42 $\frac{1}{4}$	Tins of Fruit ... ..	9
Boxes ... ..	116 $\frac{1}{2}$	Carrots ... .. (cwt.)	37 $\frac{1}{2}$
Pounds ... ..	664 $\frac{1}{2}$	Chips of Plums ... ..	137
Rabbits ... ..	455	Barrels of Apples ... ..	13
Tins of Meat ... ..	29		
Boxes of Pears ... ..	24		
Crates of Bananas ... ..	7		
Chips of Raspberries ... ..	18		
Sieves of Damsons ... ..	4		
Boxes of Apricots ... ..	9		

## NUMBER OF VISITS TO INSPECT FOOD.

Fish Shops .. .. .	912
Provision Shops .. .. .	1030
Butchers' Shops .. .. .	1918
Private Slaughterhouses .. .. .	40
Meat Market .. .. .	192
Fish Market .. .. .	274
Railway Station .. .. .	273
	<hr/>
	4639

## CARCASSES, ETC., SENT FOR UTILIZATION.

	<i>Tons.</i>	<i>Cuts.</i>	<i>Qrs.</i>
January .. .. .	6	13	0
February .. .. .	7	17	0
March .. .. .	7	4	0
April .. .. .	4	19	0
May .. .. .	6	4	2
June .. .. .	3	17	0
July .. .. .	6	17	2
August .. .. .	3	3	0
September.. .. .	3	14	0
October .. .. .	8	3	0
November.. .. .	5	9	0
December .. .. .	6	3	0
	<hr/>	<hr/>	<hr/>
TOTAL .. .. .	70	4	0
	<hr/>	<hr/>	<hr/>

E. J. BURNDRED,  
*Veterinary and Chief Meat Inspector.*

## THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

The Public Analyst is Professor W. H. Roberts, M.Sc., F.I.C. Samples taken under the above Acts are submitted to him for examination at the Public Health Laboratory, Liverpool.

The number of samples examined during 1936 was 457. Twenty, or 4·37%, of the total proved, on examination, to be adulterated, or not up to standard.

**TABLE 29. THE FOOD & DRUGS (ADULTERATION) ACT, 1928.**

	Samples Taken.		Samples Genuine.		Samples Adulterated.	
	Formal	Informal	Formal	Informal	Formal	Informal
Milk .....	50	240	45	230	5	10
Butter .....	-	4	-	4	-	-
Margarine .....	-	6	-	6	-	-
Tea .....	-	3	-	3	-	-
Coffee .....	-	3	-	3	-	-
Cocoa .....	-	4	-	4	-	-
Cheese .....	-	3	-	3	-	-
Barley .....	-	1	-	1	-	-
Rice .....	-	3	-	3	-	-
Jam .....	-	6	-	6	-	-
Baking Powder .....	-	2	-	2	-	-
Custard Powder .....	-	2	-	2	-	-
Egg Substitute Powder .....	-	1	-	1	-	-
Condensed Milk .....	-	15	-	13	-	2
Tinned Peaches .....	-	4	-	4	-	-
Mixed Spice .....	-	1	-	1	-	-
Self-Raising Flour .....	-	4	-	4	-	-
Pepper .....	-	1	-	1	-	-
Ice Cream.....	-	24	-	24	-	-
Vinegar.....	-	6	-	5	-	1
Curry.....	-	1	-	1	-	-
Salad Cream.....	-	1	-	1	-	-
Lemon Curd.....	-	1	-	1	-	-
Butter Beans .....	-	2	-	2	-	-
Dried Mint .....	-	1	-	-	-	1
Cephos .....	-	1	-	1	-	-
Tinned Cream .....	-	3	-	3	-	-
„ Salmon .....	-	3	-	3	-	-
Fruit Cocktail .....	-	1	-	1	-	-
Tinned Grape Fruit .....	-	2	-	2	-	-
Barlova.....	-	1	-	1	-	-
Oatmeal .....	-	2	-	2	-	-
Tinned Peas.....	-	4	-	4	-	-
Crab and Lobster Paste.....	-	1	-	1	-	-
Treacle .....	-	2	-	2	-	-
Jelly .....	-	2	-	2	-	-
Marmalade .....	-	1	-	1	-	-
Friarbakc .....	-	2	-	2	-	-
Ground Almonds.....	-	1	-	1	-	-
Blanc Mange .....	-	1	-	1	-	-
Sugar.....	-	1	-	1	-	-
Lard .....	-	2	-	2	-	-
Honey .....	-	1	-	1	-	-
Sage .....	-	2	-	2	-	-
Sauce.....	-	2	-	2	-	-
Lemon Cheese.....	-	3	-	3	-	-
Yeast.....	-	1	-	1	-	-
Sausages .....	-	3	-	2	-	1
Cornflour .....	-	3	-	3	-	-
Mustard .....	-	1	-	1	-	-
Spice .....	-	1	-	1	-	-
Sago .....	-	1	-	1	-	-
Ground Rice.....	-	1	-	1	-	-
Camphorated Oil.....	-	1	-	1	-	-
Dessicated Cocoanut .....	-	2	-	2	-	-
Olive Oil .....	-	3	-	3	-	-
Glauber Salts .....	-	1	-	1	-	-
Oats .....	-	2	-	2	-	-
Bisto .....	-	2	-	2	-	-
Lemon Syrup .....	-	1	-	1	-	-
Chocolate .....	-	1	-	1	-	-
Demerara Sugar .....	-	1	-	1	-	-
Epsom Salts.....	-	1	-	1	-	-
Turkey and Tongue Paste.....	-	1	-	1	-	-
Meat and Fish Paste .....	-	1	-	1	-	-
Carbonate of Soda .....	-	1	-	1	-	-
Castor Sugar.....	-	1	-	1	-	-
Icing Sugar .....	-	-	-	-	-	-
<b>TOTAL .....</b>	<b>50</b>	<b>407</b>	<b>45</b>	<b>392</b>	<b>5</b>	<b>15</b>



TABLE 30.

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.—ACTION TAKEN IN REGARD TO ADULTERATED SAMPLES.

Articles Purchased.	Number Analysed	Number Genuine	Number Adulterated	Sample	Formal	Informal	Amount of Adulteration.	Action Taken.
Milk ...	290	275	15	386	Yes	...	Contained 3% added water ...	Dismissed on payment of costs.
			388		...	Yes	Contained 5% added water ...	Further sample taken and found genuine.
			407		...	Yes	2.90% Fat, 8.73% other solids	Ditto.
			425		...	Yes	Deprived of 5% of its milk fat...	Ditto.
			452		Yes	...	Deprived of 11% of its milk fat	Fined 10s. and costs.
			28		...	Yes	Contained 9% added water ...	Further sample taken (see Sample 33).
			33		Yes	...	Contained 12% added water ...	Fined £2 and special costs.
			54		...	Yes	2.87% fat, 8.60% other solids...	Formal sample taken and found genuine.
			62		...	Yes	Deprived of 13% of its milk fat	Ditto.
			145		...	Yes	" 7% "	Formal sample taken (see sample 177).
			177		Yes	...	" 13% "	Investigation made at farm. Cause remedied.
			225		Yes	...	" 8% "	Fined 20s. and costs.
			248		...	Yes	" 15% "	Formal sample taken and found genuine.
			268		...	Yes	" 13% "	Ditto.
			288		...	Yes	" 10% "	Ditto.
Condensed Full Cream Milk (unsw'd)	7	6	1	433	...	Yes	Deficient in milk solids to extent of 3%	Warning letter sent.
Condensed Mach. Skm'd. Milk (sweetd)	8	7	1	462	...	Yes	Slightly deficient in milk solids other than milk fat ...	Ditto.
Dried Mint.	1	...	1	19	...	Yes	Contained 2.3% sand silicious matter	Ditto.
Sausages	3	2	1	370	...	Yes	Deficient in meat to extent of 10%	Ditto.
Vinegar	6	5	1	306	...	Yes	Deficient in acetic acid to extent of 19%	Ditto.

TABLE 31.

## THE PUBLIC HEALTH (PRESERVATIVE, &amp;C. IN FOOD) REGULATIONS, 1925 &amp; 1927.

DESCRIPTION OF SAMPLE.	No. of Samples Examined	No. of Samples Free	No. Containing Preservative	Where examination of preservative has been made and none found the fact is indicated by a x. All results are expressed in parts per million.							
				Sulphur Dioxide	Benzoic Acid	Borates	Salicylic Acid	H'drogen Peroxide	Formaldehyde	Sodium Fluorides	Nitrite
Milk ...	290	290	—	—	—	x	—	—	—	—	—
Tinned Cream	3	3	—	—	—	x	—	x	—	—	—
Butter	4	4	—	—	—	x	—	—	—	x	—
Margarine	6	6	—	—	—	x	—	—	—	x	—
Jam ...	7	5	2	30/35	x	x	—	—	—	—	—
Condensed Milk	15	15	—	—	—	x	—	—	—	—	—
Custard Powder	2	—	2	80/50	—	—	—	—	—	—	—
Jelly ...	1	1	—	x	—	—	—	—	—	—	—
Marmalade	1	1	—	x	x	x	x	—	—	—	—
Salad Cream...	1	1	—	x	x	x	x	—	—	—	—
Sugar...	3	2	1	20	—	—	—	—	—	—	—
Cornflour	3	1	2	40	—	—	—	—	—	—	—
Lemon Cheese	3	3	—	x	x	x	x	—	—	—	—
Syrup	1	1	—	x	—	—	—	—	—	—	—
Sauce...	2	2	—	x	x	x	x	—	—	—	—
Ice Cream	24	24	—	x	—	x	—	—	—	—	—
Barley	1	1	—	x	—	—	—	—	—	—	—
Meat and Fish Paste	1	1	—	x	—	x	—	—	—	—	—
Lemon Curd...	1	1	—	x	x	x	x	—	—	—	—
Crab and Lobster Paste	1	1	—	x	—	x	—	—	—	—	—
Sago ...	1	1	—	x	—	—	—	—	—	—	—
Honey	1	1	—	x	—	—	—	—	—	—	—
Blanc Mange	1	1	—	x	—	—	—	—	—	—	—
Sausage	3	3	—	x	—	x	—	—	—	—	—
Treacle	2	2	—	x	—	—	—	—	—	—	—
Pepper	1	1	—	x	—	—	—	—	—	—	—
Turkey and Tongue Paste...	1	1	—	x	x	—	—	—	—	—	—
Mince meat	1	1	—	x	x	x	x	—	—	—	—

## FERTILISERS AND FEEDING STUFFS ACT, 1926.

Eleven samples of feeding stuffs and fertilisers were examined by the Analyst during the year. Of these, nine conformed with the statutory statement and two failed to do so. The vendors of the samples were informed of the difference between the actual composition and the composition as defined in the statutory statement, and the deficiency or excess was pointed out, and in the case of the formal samples the Ministry of Agriculture were informed.

The appended Table gives particulars of work done under the Act :--

TABLE 32.

ARTICLE.	Formal	Informal	According to Statutory Statement	Not According to Statutory Statement	ACTION TAKEN.
Laying Meal ... ..	-	1	1	-	...
Pig Meal ... ..	-	1	1	-	...
Sangral ... ..	-	1	-	1	Letter sent.
B.P. General Fertiliser	-	1	-	1	Letter sent.
Sussex Ground Oats...	-	1	1	-	...
Superfine Weating ...	-	2	2	-	...
Flaked Maize ... ..	-	1	1	-	...
Bran ... ..	-	2	2	-	...
Sulphate of Potash ...	-	1	1	-	...

## MERCHANDISE MARKS ACT, 1926.

Every endeavour has been made to give publicity to the provisions of the above Act.

Three thousand, eight hundred and forty-four visits were made to premises, and personal warnings given by the Inspector in 241 instances.

## ICE CREAM.

There are 135 ice-cream preparing premises in Blackburn, to which 1,364 visits were paid during the year. Cleansing and whitewashing has been carried out at all the premises, and in two instances new premises have been obtained and the sanitary conditions brought up-to-date. One of these has also installed completely new apparatus.

It has been pointed out previously that there is no standard in this country for ice cream.

This applies not only to the constituents, but also to the purity of the product.

The lack of control is also evident from the variety of premises which are used for its manufacture.

Twenty-four samples were taken for chemical analysis, and 24 samples were taken for bacteriological examination.

The fat content ranged from 13·9%, a true ice cream, to 1·1%, which is not of much food value.

Bacterial counts varied from 2000 bacteria per c.c. with *B. Coli* absent in 1 c.c., to millions of bacteria per c.c., with *B. Coli* present in 1/1000 c.c.

Every endeavour is being made to provide premises, self-contained, and separate from living premises, on lines similar to those adopted for dairies.

During the year two such premises were provided, which are admirable for their purpose, but, until registration is required and enforced, there will always be premises used which, to say the least, are undesirable.

## HANDLING OF FOODSTUFFS.

This section would be incomplete were not references made to the dangerous manner in which certain articles of food, notably confectionery and sweets, are sometimes handed by the retailer to the purchaser. I refer to

the habit, common to many, of moistening the forefinger and thumb with the tongue before picking up the paper bag, preparatory to its being blown open with a forced expiration of droplet-laden breath. This process completed, the foodstuff is then transferred to its contaminated container by the sputum-infected hand of the vendor.

In the majority of cases food-stuffs are prepared under satisfactory and hygienic conditions, safeguards which, in many instances, are nullified by subsequent dirty handling.

The purchaser, by refusing to accept articles so handled, would do much to discourage this disgusting practice.

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*PART IV.*

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Prevalence of,  
*and*  
Control over,  
Infectious Disease.



TABLE 33.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1936.

NOTIFIABLE DISEASE.	Cases notified in whole District.													Total cases notified in each Locality.												Total Deaths in the Borough				
	At Ages—Years.													Total cases removed to Corporation Hospital	Total Deaths in the Borough															
	At all Ages	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65			65 and upwards														
Small-pox...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	5	3	5	14	12	5	3	11	10	4	9	7	108	2	
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	1	2	2	2	—	—	—	1	3	2	2	1	9	—	
Diphtheria (including Membranous Group) ...	112	1	1	3	6	5	39	27	9	14	6	1	—	—	62	26	22	31	16	4	6	22	39	17	10	21	23	251	—	
Erysipelas...	32	—	—	—	—	—	2	—	1	3	6	9	8	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Scarlet Fever ...	311	2	2	10	22	44	146	53	7	19	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	
Enteric Fever ...	6	—	—	—	—	—	—	—	—	4	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Puerperal Fever ...	3	—	—	—	—	—	—	—	—	3	—	—	—	—	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—	
Puerperal Pyrexia ...	17	—	—	—	—	—	—	—	—	15	2	—	—	—	4	—	—	1	—	—	—	—	2	1	3	1	2	—	—	
Cerebro-spinal Meningitis	3	—	—	—	—	—	—	—	1	—	1	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	
Ophthalmia Neonatorum	5	5	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pulmonary Tuberculosis	67	—	—	—	—	—	1	1	5	20	15	10	12	3	8	2	7	2	7	6	4	4	3	7	7	4	2	100	53	
Other forms of Tuberculosis	39	—	—	—	—	—	—	—	1	4	20	5	4	2	5	1	5	1	4	4	2	1	6	2	2	1	1	57	26	
Poliomyelitis	17	—	—	1	—	1	6	1	4	3	1	—	—	—	2	1	2	1	1	1	1	1	1	1	1	1	2	4	4	
Encephalitis Lethargica	20	1	1	1	1	1	—	4	1	7	2	—	—	1	1	—	2	1	1	1	3	—	1	2	2	3	2	—	5	
Dysentery...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Malaria ...	3	—	—	1	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—	
Pneumonia ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
*Diarrhoea ...	140	5	6	4	3	3	18	8	4	25	24	12	18	10	22	11	10	6	8	4	7	10	4	17	5	15	4	—	116	
TOTALS ...	783	15	14	21	33	54	212	97	36	133	69	37	42	20	133	54	56	30	61	49	33	33	38	90	67	37	58	44	540	218

\* Notifiable from July 1st to September 30th, 1936, only.

TABLE 34.

AGE INCIDENCE OF CASES NOTIFIED.

INFECTIOUS DISEASES.				AGE INCIDENCE OF CASES NOTIFIED.																												
Under One Year		1-2 Years		2-3 Years		3-4 Years		4-5 Years		5-10 Years		10-15 Years		15-20 Years		20-35 Years		35-45 Years		45-65 Years		Over 65 Years		Total 1936		Totals 1934		Totals 1933				
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Scarlet Fever .....	1	1	2	3	7	11	11	19	25	63	83	22	31	2	5	5	14	2	4	..	..	..	..	..	128	183	165	199	305	360	271	278
Diphtheria .....	..	1	1	1	2	4	2	4	1	23	16	13	14	1	8	4	10	..	6	..	1	..	..	..	51	61	76	87	48	42	57	52
Erysipelas.....	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	2	1	2	4	7	10	2	1	13	19	21	23	27	27	30	28	
Enteric Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	1	..	..	..	1	..	3	3	2	1	1	2	1	..	
Puerperal Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	3	6	..	8	..	6	
Puerperal Pyrexia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	..	2	..	..	..	..	..	17	..	12	..	13	..	10	
Ophthalmia Neonatorum	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	2	..	5	3	5	7	
Pneumonia Ac. Primary..	4	1	3	3	2	2	1	2	1	10	8	7	1	3	1	14	11	15	9	20	10	3	7	85	55	116	65	103	60	138	115	
Tuberculosis—Lungs .....	..	..	..	..	..	..	..	..	..	1	..	1	1	5	4	20	20	15	5	22	7	3	2	67	39	58	45	55	34	55	29	
do. Other Forms.	..	1	1	1	1	..	1	1	1	6	..	1	4	4	1	3	7	1	2	..	..	1	17	20	23	8	13	8	16	12		
Encephalitis Lethargica...	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	2	4	3	3	1	3	2	
Diarrhoea .....	..	1	1	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	3	4	..	1	1	..	
TOTALS .....	7	8	5	9	7	13	17	15	26	28	103	109	45	51	15	20	49	84	36	32	49	29	9	11	368	409	470	453	560	559	577	539

TABLE 35.

## Infectious Diseases.

CASE INCIDENCE PER 1000 OF THE POPULATION.

	St. Stephen's	Trinity	St. Michael's	St. John's	St. Silas	St. Paul's	St. Peter's	St. Mary's	St. Matthew's	St. Thomas	Park	St. Luke's	St. Mark's	St. Andrew's
Scarlet Fever .....	4.95	3.42	2.70	1.95	3.60	1.89	0.68	1.22	2.72	3.66	1.98	1.44	2.22	2.25
Diphtheria .....	1.12	1.31	0.61	0.48	0.58	1.65	2.04	1.02	0.37	1.03	1.16	0.58	0.95	0.68
Erysipelas.....	0.56	0.13	0.24	0.32	0.23	0.23	0.00	0.00	0.12	0.65	0.35	0.28	0.21	0.09
Enteric Fever .....	0.08	0.00	0.00	0.16	0.11	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00
Puerperal Fever .....	0.08	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
Puerperal Pyrexia .....	0.32	0.00	0.00	0.00	0.11	0.00	0.00	0.20	0.24	0.18	0.11	0.43	0.10	0.19
Ophthalmia Neonatorum ....	0.00	0.13	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.11	0.14	0.10	0.00
Acute Primary Pneumonia ..	1.76	1.45	1.23	0.97	0.92	0.47	1.19	2.05	0.49	1.59	1.98	0.72	1.59	0.39
Tuberculosis—Lungs .....	1.04	0.39	1.47	0.48	1.27	1.18	1.36	1.23	0.61	0.84	1.05	1.29	0.53	0.29
do. Other Forms ..	0.23	0.13	0.49	0.32	0.23	0.23	0.34	0.82	0.12	0.18	0.35	0.43	0.42	0.39
Encephalitis Lethargica.....	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00
Diarrhoea .....	0.23	0.00	0.00	0.16	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 36.

SHEWING NUMBER OF CASES OF INFECTIOUS DISEASES NOTIFIED FROM 1917 TO 1936.

DISEASE.	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Smallpox	...	...	...	...	...	...	...	...	...	9	5	10	34	...	...	...	...	22	...	...
Diphtheria (including Mem- branous Group)	50	57	30	69	45	52	35	62	67	81	99	124	197	133	57	95	109	90	163	112
Erysipelas	40	52	38	59	47	54	52	45	39	44	66	42	57	56	36	42	58	54	44	32
Scarlet Fever	96	150	136	181	211	231	216	70	304	125	125	121	761	342	81	232	549	665	364	311
Enteric Fever	13	13	3	5	2	5	3	3	2	9	2	1	6	7	2	9	1	3	3	6
Puerperal Fever	3	5	5	12	15	7	12	10	13	11	7	10	9	7	7	4	6	8	6	3
Puerperal Pyrexia	...	...	...	...	...	...	...	...	...	11	19	9	16	16	21	13	10	13	12	17
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	3
Poliomyelitis	...	...	...	1	3	...	1	1	...	...	...	...	...	...	...	1	4	...	1	...
Pulmonary Tuberculosis	131	176	124	88	150	145	176	150	169	132	111	106	125	153	160	116	84	89	103	106
Other forms of Tuberculosis	47	54	47	38	71	70	102	63	71	44	40	36	30	38	50	33	28	21	31	37
Ophthalmia Neonatorum	7	15	18	22	24	22	15	17	25	19	19	17	13	21	7	12	12	8	2	5
*Measles	1938	1560	103	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	...	...	5	2	2	1	10	32	5	9	8	7	5	2	6	10	5	4	7	3
Dysentery	...	...	3	1	1	...	...	...	...	1	1	1	...	5	1	...	...	...	...	3
Malaria	...	...	61	18	4	2	1	1	1	1	...	...	...	...	...	2	...	1	...	...
Pneumonia	...	...	114	158	176	275	349	358	242	149	256	...	305	161	290	176	...	163	181	140
†Diarrhoea...	...	...	...	...	31	1	2	4	21	12	1	1	6	5	3	3	1	1	7	5
*Chicken-Pox	...	...	...	...	...	...	...	...	...	...	...	44	257	...	...	...	...	280	...	...
TOTALS	2325	2083	689	654	782	865	974	816	959	750	759	751	1823	950	721	749	1122	1424	924	783

\* No longer notifiable.

† Notifiable from July 1st to October 31st.



TABLE 37.

## NOTIFICATION OF INFECTIOUS DISEASES.

Disease	Incidence Rate per 1000 of Population						Death Rate per 1000 of Population						Housing Conditions																			
	Total Deaths						Cases admitted to Hospital						1936				1935				1934				1933				1932			
	1936	1935	1934	1933	1932	1936	1935	1934	1933	1932	1-3 rooms	4-5 rooms	5 rooms over	1-3 rooms	4-5 rooms	5 rooms over	1-3 rooms	4-5 rooms	5 rooms over	1-3 rooms	4-5 rooms	5 rooms over	1-3 rooms	4-5 rooms	5 rooms over	1-3 rooms	4-5 rooms	5 rooms over				
Small Pox .....	..	0.00	..	0.18	0.00	0.00	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Scarlet Fever .....	311	2.68	3.07	5.54	4.52	1.89	0.00	0.00	0.008	0.04	5	183	123	1	192	171	11	362	292	17	377	155	10	164	58	..	..	..	..			
Diphtheria .....	112	20.96	1.37	0.75	0.89	0.77	0.01	0.19	0.03	0.04	8	55	49	4	93	66	5	47	38	6	67	36	3	66	26	..	..	..	..			
Enteric Fever .....	6	10.05	0.02	0.02	0.008	0.07	0.008	0.00	0.00	0.00	..	1	5	..	..	3	..	2	1	..	1	..	..	6	3	..	..	..	..			
Puerperal Fever .....	3	20.02	0.05	0.06	0.04	0.03	0.01	0.01	0.01	0.00	..	2	1	..	3	3*	..	5	3	..	2	4	..	2	2	..	..	..	..			
Puerperal Pyrexia .....	17	0.14	0.10	0.10	0.08	0.10	0.00	0.00	0.00	0.00	..	12	5*	1	8	3†	..	11	2	..	7	3	..	9	4	..	..	..	..			
Pneumonia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Acute Primary and Acute Influenzal .....	140	116	1.20	1.53	1.36	2.08	1.44	1.00	0.19	0.98	1.12	0.72	0.008	7	84	49	4	111	48	5	186	62	16	117	43	..	..	..	..			
Erysipelas .....	32	9	0.27	0.37	0.45	0.47	0.34	0.00	0.03	0.03	0.04	0.008	0.00	2	18	12	1	26	27	..	42	16	..	26	16	..	..	..	..			
Ophthalmia Neonatorum .....	5	3	0.04	0.01	0.06	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	..	4	1†	..	1	6	1	..	9	3	1	10	1	..	..	..			
Encephalitis Lethargica .....	3	50	0.02	0.06	0.03	0.04	0.08	0.04	0.05	0.03	0.04	0.06	0.06	..	1	2†	..	3	1	..	3	2	..	6	4	..	..	..	..			
Tuberculosis—Pulmonary .....	67	100	53	0.57	0.49	0.46	0.45	0.54	0.46	0.39	0.34	0.40	0.35	1	44	22	3	40	15	2	41	12	2	40	13	5	48	13	..			
Males .....	39	57	26	0.33	0.38	0.28	0.24	0.40	0.22	0.27	0.20	0.29	0.29	3	29	7	1	35	9	1	28	5	2	20	7	2	39	9	..			
Females .....	106	157	79	0.90	0.87	0.74	0.69	0.94	0.68	0.66	0.55	0.69	0.64	4	73	29	4	75	24	3	69	17	4	60	20	7	87	22	..			
Total .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Non-Pulmonary :	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Males .....	17	4	40	0.14	0.19	0.10	0.13	0.11	0.03	0.07	0.06	0.02	0.05	1	11	5	1	17	5	1	11	1	3	8	5	1	9	4	..			
Females .....	20	..	50	0.17	0.06	0.06	0.09	0.15	0.04	0.06	0.02	0.07	0.09	..	16	4	..	7	1	1	4	3	1	7	4	2	12	5	..			
Total .....	37	4	90	0.31	0.25	0.17	0.23	0.27	0.07	0.13	0.09	0.09	0.15	1	27	9	1	24	6	2	15	4	4	15	9	3	21	9	..			
Diarrhoea .....	5	..	40	0.04	0.06	0.008	0.008	0.02	0.03	0.05	0.06	0.09	0.06	..	4	1	..	6	1	..	1	..	..	1	..	..	..	2	1			
TOTAL .....	777	537	218	6.69	7.80	9.51	9.19	6.09	1.87	2.36	1.89	2.14	1.74	27	464	286	21	563	339	27	673	441	36	770	310	40	516	189	..			

\* 3 Cases of Puerperal Pyrexia from outside the Borough. † 1 Case of Encephalitis Lethargica from outside the Borough.

+ 1 Case of Ophthalmia Neonatorum from outside the Borough.

TABLE 38.

NOTIFICATION OF INFECTIOUS DISEASES.—ROOM SPACE IN RELATION TO INFECTIOUS DISEASES INCIDENCE.

Disease.	1936					1935					1934					1933					1932																			
	Admitted to Hospital.		Remaining at Home.			Admitted to Hospital.		Remaining at Home.			Admitted to Hospital.		Remaining at Home.			Admitted to Hospital.		Remaining at Home.			Admitted to Hospital.		Remaining at Home.																	
	No. of persons per room		No. of persons per room			No. of persons per room		No. of persons per room			No. of persons per room		No. of persons per room			No. of persons per room		No. of persons per room			No. of persons per room		No. of persons per room																	
	1-2	More than two	Total	Less than one	1-2	More than two	Total	Less than one	1-2	More than two	Total	Less than one	1-2	More than two	Total	Less than one	1-2	More than two	Total	Less than one	1-2	More than two	Total	Less than one	1-2	More than two	Total													
Scarlet Fever .....	90	140	21	251	38	22	..	60	92	121	56	269	54	41	..	95	119	250	35	404	157	103	1	261	141	251	38	430	73	46	..	119	3	104	82	189	7	33	3	43
Diphtheria .....	48	45	15	108	2	2	..	4	67	81	7	155	5	3	..	8	16	56	14	86	2	2	..	4	23	49	27	99	6	4	..	10	2	50	39	91	2	2	..	4
Enteric Fever.....	..	2	3	5	1	..	..	1	2	1	..	3	..	..	..	..	..	1	2	3	..	..	..	1	..	..	..	..	..	..	..	6	3	9	..	..	..	..	..	
TOTAL .....	138	187	39	364	41	24	..	65	161	203	63	427	59	44	..	103	135	307	51	493	159	105	1	265	165	306	65	530	79	50	..	129	5	160	124	289	9	35	3	47



## SCARLET FEVER.

During 1936, 311 cases of scarlet fever were notified, an incidence of 2·68 cases per 1,000 living. Two hundred and fifty-one cases, or 80·7% of those notified, were removed to the Hospital.

The majority of the cases were mild. No deaths occurred during the year.

As in 1935 the heaviest incidence was amongst the 5-15 age group where 199 cases, or 64·3% of the total notified, occurred.

Scarlet fever anti-toxin is supplied free of charge to practitioners desirous of passively immunising immediate contacts of the disease.

Although no definite scheme exists for active immunisation against scarlet fever, 30 persons were Dick-tested during the year.

**TABLE 39.**  
**SCARLET FEVER.**

Year.	Cases Notified in Black- burn.	Attack Rate per 100,000 of popu- lation.	No. of Deaths.	Per- centage of Deaths to cases notified.	All Cases Admitted to Hospital.		
					No. Admitted	No. of Deaths.	Per- centage of Deaths to cases treated.
1907 .....	544	479.0	21	3.86	381	12	3.10
1908 .....	595	439.8	20	3.36	434	18	4.10
1909 .....	1013	744.1	53	5.23	760	39	5.10
1910 .....	795	580.3	27	3.39	538	17	3.10
1911 .....	343	248.9	10	2.91	241	5	2.00
1912 .....	116	87.1	3	2.59	78	2	2.50
1913 .....	268	200.8	1	0.37	199	2	1.01
1914 .....	704	524.1	10	1.40	560	6	1.07
1915 .....	460	341.5	6	1.30	360	5	1.40
1916 .....	153	116.1	4	2.60	101	2	1.90
1917 .....	96	76.0	2	2.08	68	1	1.50
1918 .....	150	120.1	2	1.30	122	2	1.60
1919 .....	136	103.6	2	1.47	105	2	1.90
1920 .....	181	120.9	3	1.60	164	3	2.40
1921 .....	211	163.0	1	0.40	162	1	0.60
1922 .....	231	178.5	2	0.80	186	2	0.80
1923 .....	216	167.4	0	0.00	181	0	0.00
1924 .....	70	54.2	1	1.43	62	1	1.60
1925 .....	304	239.5	3	0.98	274	3	1.10
1926 .....	218	175.2	1	0.46	192	1	0.53
1927 .....	125	100.4	1	0.80	116	1	0.86
1928 .....	121	96.7	0	0.00	104	0	0.00
1929 .....	761	607.3	2	0.26	634	1	0.15
1930 .....	342	272.1	0	0.00	285	0	0.00
1931 .....	81	65.3	0	0.00	64	1	1.56
1932 .....	232	189.8	1	0.43	189	1	0.52
1933 .....	549	452.5	2	0.36	430	2	0.46
1934 .....	665	554.7	5	0.75	404	1	0.24
1935 .....	364	307.1	1	0.27	269	1	0.37
1936 .....	311	268.1	0	0.00	251	0	0.00

## DIPHTHERIA.

During the year 112 cases of diphtheria were notified, a figure equivalent to an attack rate of 0·96 per 1,000 of population. There were two deaths, giving a mortality rate of 1·7 per 100 cases notified, the lowest figure recorded in Blackburn.

One hundred and eight cases, or 96·4% of the total notified, were removed to Hospital.

The disease was of a less severe type than in the preceding year.

## SUPPLY OF ANTITOXIN TO PRACTITIONERS.

A supply of antitoxin for the use of practitioners is kept at the Health Office. A further quantity is kept at the Police Office, to which practitioners apply when the Health Office is closed.

The practitioners, as a body, avail themselves of the anti-toxin provided by the Health Department. During 1936, 824,000 units of anti-toxin were so dispensed.

**TABLE 40.**  
**DIPHTHERIA.**

Year.	Cases Notified in Black- burn.	Attack Rate per 100,000 of popu- lation.	No. of Deaths.	Per- centage of Deaths to cases notified.	All Cases Admitted to Hospital.		
					No. Admitted	No. of Deaths.	Per- centage of Deaths to cases treated.
1907 .....	150	111.5	17	11.3	63	5	7.9
1908 .....	100	73.9	12	12.0	39	0	<i>Nil.</i>
1909 .....	102	74.9	18	17.6	29	5	17.2
1910 .....	96	70.0	22	22.9	42	9	21.4
1911 .....	107	77.6	28	26.1	54	9	16.6
1912 .....	55	41.3	9	16.4	36	5	13.9
1913 .....	76	56.7	7	9.2	55	7	12.7
1914 .....	62	46.1	7	11.3	37	2	5.4
1915 .....	39	28.9	8	20.6	24	3	12.5
1916 .....	52	39.5	9	17.3	32	3	9.3
1917 .....	50	39.5	8	16.0	41	4	9.9
1918 .....	57	45.6	11	19.3	56	4	7.1
1919 .....	30	22.8	3	10.0	24	1	4.1
1920 .....	69	49.3	10	14.5	59	7	13.2
1921 .....	45	34.8	6	13.4	27	3	11.0
1922 .....	52	40.1	7	13.4	38	6	13.0
1923 .....	35	27.1	1	2.8	32	1	3.1
1924 .....	62	48.0	3	4.8	48	2	4.1
1925 .....	67	52.8	8	11.9	58	6	7.7
1926 .....	81	65.0	8	9.9	73	8	9.3
1927 .....	99	79.5	11	11.1	106	12	11.3
1928 .....	124	99.1	14	11.2	111	7	6.3
1929 .....	197	157.2	18	9.1	175	16	9.2
1930 .....	133	106.0	9	6.7	125	12	9.6
1931 .....	57	46.0	2	3.5	50	3	6.0
1932 .....	95	77.7	7	7.3	91	9	9.8
1933 .....	109	89.7	5	4.5	99	5	5.0
1934 .....	90	75.0	4	4.4	86	4	4.6
1935 .....	163	137.9	23	14.1	155	22	14.2
1936 .....	112	96.5	2	1.7	112	4	3.5

## DIPHTHERIA PREVENTION.

The work of immunisation was continued, and during the year a total of 573 children underwent treatment.

TABLE 41.

## CHILDREN IMMUNISED AT SCHOOL.

<i>Total No. Innocolated.</i>		<i>Three Innocolations.</i>		<i>Two Innocolations.</i>		<i>One Innocolation.</i>
434	...	8	...	426	...	0

## IMMUNISATIONS AT HEALTH DEPARTMENT CLINIC.

<i>Total.</i>		<i>Three Innocolations.</i>		<i>Two Innocolations.</i>		<i>One Innocolation.</i>
100	...	18	...	82	...	0

## IMMUNISATIONS AT MATERNITY AND CHILD WELFARE CENTRES.

<i>Total.</i>		<i>Two Innocolations</i>		<i>One Innocolation</i>
39	...	17	...	22

## SCHICK TESTS PERFORMED AT HEALTH DEPARTMENT CLINIC.

<i>Total.</i>		<i>Negative.</i>		<i>Positive.</i>		<i>Failed to Attend for Reading.</i>
5	...	4	...	1	...	—

*Total Immunisations at all  
Diphtheria Prevention Clinics.*

573

...

*Total Schick Tests  
Performed at all Clinics.*

5

## ENTERIC FEVER.

Six cases were notified as enteric fever during the year. Five of these notifications were in respect of Borough residents, of which one proved not to be enteric.

The sixth case was a Clitheroe resident, who was admitted to the Royal Infirmary and there died. Serological confirmation of B. Paratyphosus B. infection was received the day after death, and full particulars of the case were then submitted to the Clitheroe Medical Officer of Health.

Three of the Borough cases were notified between January 2nd and January 23rd, and the fourth on June 30th. The infecting agent in this group was B. Typhosus (two cases), and B. Paratyphosus B. (two cases).

As two cases of enteric infection, one by B. Typhosus and one by B. Paratyphosus B., which occurred in the Borough during the latter five weeks of 1935, are possibly linked with those notified during 1936, they are incorporated in the appended histories.

*Case I.*—Male, aged 61 years, resident in Queen's Park District, sickened of B. Typhosus infection November 29th, 1935, notified and admitted to Corporation Hospital, December 18th, 1935.

*Case II.*—Female, aged 22 years, resident in Royal Infirmary District. Sickened of B. Paratyphosus B. infection on December 14th, 1935, notified and admitted to Hospital December 29th, 1935.

*Case III.*—Nurse at Royal Infirmary, aged 30. Sickened of B. Typhosus infection December 17th, 1935, continued on duty until warded on December 21st. Notified on January 2nd, 1936, and removed to Hospital.

*Case IV.*—Nurse at Royal Infirmary, aged 26, sickened of B. Typhosus infection about the 10th January, notified and removed to Hospital, January 17th.

*Case V.*—Male, aged 29 years, resident in Brownhill. Sickened on January 12th, but was not reported to the Health Department until the 22nd, on which date serological diagnosis of B. Typhosus infection was received from the Public Health Laboratory.

On receipt of that report I visited his home and arranged for removal to Hospital. He died before removal.



*Case VI.*—Female, aged 30, resident in Revidge District, sickened of *B. Paratyphosus B.* infection about June 20th, notified and removed to Hospital June 30th.

Exhaustive enquiries into the origin of these cases yielded negative results, although Case IV may either have become infected by Case III or by the same source. Contact of these two cases with either Nos. I or V of the series could not be traced.

The movements of the cases during the three weeks prior to onset were carefully checked, but failed to give any source of infection.

Socially, the three cases of paratyphoid had different interests, they lived in various parts of the town, as far as could be ascertained had no mutual friends, nor was there any common milk supply or laundry.

Results of water analyses absolved the supplies of the affected households.

Although there was no evidence as to shell-fish consumption by any of the infected persons, special samples of cockles and mussels were bacteriologically examined, as a result of which, and in co-operation with the local wholesalers, the supply of mussels from a certain source was discontinued.

In a further effort to trace a source of infection all bacteriological reports on specimens from cases notified as enteric since 1930 were scrutinised and further specimens were examined, again with negative result.

## PUBLIC HEALTH (INFECTIOUS DISEASES) REGULATIONS, 1927.

One hundred and forty cases of acute primary and acute influenzal pneumonia were notified in 1936, compared with 181 in 1935. Twenty-three of these cases terminated fatally, which represents a case mortality of 16·43%, compared with 22·09% in 1935.

### MEASLES.

This disease is not notifiable under the Infectious Diseases (Notification) Act.

Two hundred and twenty-four cases were brought to the notice of the Public Health Department by parents and teachers. The cases notified in previous years were : 1,192 in 1935 ; 42 in 1934 ; 1,194 in 1933 ; 68 in 1932 ; 447 in 1931 ; 1,976 in 1930 ; 242 in 1929 ; 67 in 1928 ; 1,272 in 1927 ; and 619 in 1926.

No deaths from measles occurred during the year.

### WHOOPING COUGH.

This disease is not notifiable. Such cases as were brought to the notice of the Health Department were ascertained through the agency of teachers, school attendance officers, and the Maternity and Child Welfare Centres. The number of cases (105) was lower than in 1935, when 350 cases were notified ; five deaths occurred from this cause, the case mortality rate being 47%, compared with 2·0% in 1935.

### DIARRHŒA.

This disease is voluntarily notifiable in Blackburn between July 1st and October 31st of each year, notification being required in respect of children under two years of age. Only five cases were notified during the year.

Diarrhœa was certified as the cause of four deaths.

Three of the deaths were in respect of infants under one year of age ; and one was in the 65—75 age group.

The death rate per 1,000 births for the age group under two years was 2·20 ; the corresponding figure in 1935 was 3·52, and 4·85 in 1934, and 6·17 in 1933.

## CHICKEN-POX.

During 1936 355 cases were notified by parents, school teachers, etc., compared with 177 cases notified in 1935, and 734 cases in 1934.

## DYSENTERY.

Three cases were notified during the year, one of which proved to be an infection with the Sonnë dysentery bacillus. The diagnosis could not be confirmed bacteriologically in the other cases.

## ENCEPHALITIS LETHARGICA.

During 1936 three cases were notified as encephalitis lethargica. Five cases were certified as having died from encephalitis lethargica during the year.

No special arrangements exist for the after-care of cases of encephalitis lethargica, although accommodation is available at Queen's Park Hospital for this class of case.

## OTHER NON-NOTIFIABLE DISEASES.

Full use is made of information received from teachers and school attendance officers respecting the occurrence of cases of measles and whooping-cough, etc. These cases are followed up and investigated by the District Sanitary Inspectors, who submit investigation reports to the Medical Officer of Health.

## INFLUENZA.

Influenza was not prevalent during the year. There were 12 deaths, a figure equivalent to 0·10 deaths per 1,000 population.

TABLE 42.

## VACCINATION RETURNS, 1936.

Month	Births	Successfully Vaccinated	Exempted	Died Unvaccinated	Vaccination Postponed	Removed not traced	Removed traced	Unaccount- ed for	Insuscept- ible
January .	105	27	55	14	2	2	1	4	—
February .	105	38	54	7	—	2	1	3	—
March ..	127	32	77	6	—	1	—	10	1
April ..	130	49	59	9	1	—	4	8	—
May ..	131	28	86	3	1	3	4	6	—
June ..	137	34	88	3	3	1	—	8	—
July ..	125	27	78	6	2	1	—	11	—
August ..	131	31	73	8	—	3	2	14	—
September ..	139	12	81	10	2	2	1	31	—
October..	103	6	49	7	—	—	1	40	—
November ..	116	2	33	6	—	1	—	74	—
December ..	118	—	23	5	—	—	—	90	—
TOTALS ..	1467	286	756	84	11	16	14	299	1

From the above Table it will be noted that of 1,467 children born during the year only 286, or 19·4%, were successfully vaccinated, and exemptions were successfully claimed in respect of 756 children, or 51·5% of those born.

## CORPORATION HOSPITAL.

There are 124 beds at the Corporation Hospital, allotted as follows :—

Scarlet Fever	...	..	...	...	...	30 beds
Diphtheria	...	...	..	...	...	16 beds
Tuberculosis	...	...	...	...	...	64 beds
Other Infectious Diseases	...	...	..	...	...	14 beds

During the year considerable alterations have been effected at the Hospital where, amongst other improvements, Ward V has been modernised by the installation of central heating and replacement of the old lights with an up-to-date hospital lighting system. The original floor of this Ward was of terrazzo,

a material which has the disadvantages of being cold, hard, noisy, and also particularly favourable to condensation dampness. As part of the reconstruction scheme birch flooring has been overlaid, and has contributed materially to the comfort of both patients and staff.

The ward kitchen and sanitary annexes were also altered, and lavatory basins have been installed in the wards.

In addition to the ward alterations the greater part of the ground to its west front has been filled in and reclaimed. What was an area of rough grass has been transformed into a croquet lawn, a sunken rock and rose-garden and a small terraced lawn. The remainder of this land is to be reclaimed.

During the present financial year Ward I is to be centrally heated, rewired and modernised, and the Committee is to consider the sub-division of one wing of this ward into separate and self-contained glass cubicles. These cubicles will not only enable a larger variety of cases to be treated in hospital at the same time, but will also be available for the reception of a proportion of cases of scarlet fever admitted. It is well established that cases of the latter disease treated in open wards show a higher complication rate than those treated in separate cubicles. Complications prolong hospital stay, and are, therefore, an added expense to the Authority. Although it is not a cheap matter to split an open ward up into cubicles, the initial outlay will be justified by the increased efficiency of your hospital.



TABLE 43.  
Corporation Hospital.

	Patients remaining in Hospital on January 1st, 1936.			Patients admitted and Discharged in 1936.			Patients remaining in Hospital on December 31st, 1936			Analysis of all cases admitted in 1936 whether discharged or not during the year.					Average number of beds occupied during 1936	Cases removed expressed as a percentage of total notified
	Total covered	Re- covered	Died	Total covered	Re- covered	Died	Total covered	Re- covered	Died	Case Mor- tality %	Av. No of days in Hosp'l					
Tuberculosis .. ..	45	40	5	105	89	16	26	26	—	131	115	16	12.22	101.26	40.75	91.6
INFECTIOUS DISEASES																
Scarlet Fever ..	11	11	—	237	237	—	32	32	—	269	269	—	0.00	31.56	23.26	80.7
Diphtheria ..	10	10	—	120	116	4	11	11	—	131	127	4	3.05	29.00	10.40	96.4
Enteric Fever ..	2	2	—	6	5	1	1	1	—	7	6	1	14.28	63.43	1.27	83.8
Measles ..	—	—	—	7	7	—	—	—	—	7	7	—	0.00	10.28	0.20	—
Erysipelas ..	—	—	—	11	9	2	—	—	—	11	9	2	18.18	10.54	0.32	28.1
Chicken Pox ..	—	—	—	1	1	—	—	—	—	1	1	—	0.00	29.60	0.08	—
Other Diseases ..	—	—	—	20	16	4	2	2	—	22	18	4	18.18	15.63	0.94	—
Puerperal Fever ..	1	1	—	—	—	—	—	—	—	—	—	—	0.00	—	—	—
Puerperal Pyrexia ..	—	—	—	—	—	—	—	—	—	—	—	—	0.00	—	—	—
TOTALS .. ..	24	24	—	402	391	11	46	46	—	448	437	11	2.45	29.71	36.47	—



## SCARLET FEVER.

Two hundred and sixty-nine patients were admitted to Hospital as suffering from scarlet fever. Fourteen of these patients proved to be suffering from other conditions. There were no deaths from scarlet fever during the year.

Anti-toxin is administered to the more severe cases, and patients are no longer detained in hospital until desquamation ceases, provided that no discharges or septic sores are present.

The following Table gives the ages and sexes of the patients admitted :—

TABLE 44.

<i>Ages.</i>	<i>Males.</i>	<i>Females.</i>	<i>Totals.</i>	<i>Deaths.</i>
0—1 years ..	1	1	2	—
1—2 „ ..	1	2	3	—
2—3 „ ..	2	7	9	—
3—4 „ ..	9	10	19	—
4—5 „ ..	20	21	41	—
5—10 „ ..	54	62	116	—
10—15 „ ..	21	27	48	—
15—25 „ ..	5	14	19	—
25—35 „ ..	1	6	7	—
35—45 „ ..	1	4	5	—
45 and over ..	—	—	—	—
Total, 1936 ..	115	154	269	—
Total, 1935 ..	134	153	287	3
Total, 1934 ..	200	220	420	1
Total, 1933 ..	232	231	463	2
Total, 1932 ..	86	121	207	1

The following Table is an analysis of all cases admitted to the Corporation Hospital as Scarlet Fever.

TABLE 45.

AGE GROUPS (YEARS).	DAY OF DISEASE ON ADMISSION							Proved to be Scarlet Fever	COMPLICATIONS														SENT IN AS SCARLET FEVER PROVED TO BE										
	1	2	3	4	5	6	7		Excoriations Lips, Nostrils etc.	Nephritis	Tonsillitis	Bronchitis	Phlyc. Keratitis	Rhinorrhoea	Serum Rash	Otorrhoea	Cervical Adenitis	Septic Fingers	Rheumatism	Abscesses	Ac. Mastoiditis	Endocarditis	Phlebitis	Ophthalmitis	Cardiac Irreg.	Rubella	Chicken Pox	Diphtheria	Pneumonia	Tonsillitis	Bronchitis	Other Diseases	Deaths
0-5	M. ....	1	15	5	5	3	-	4	32	3	-	-	-	7	-	2	3	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-
	F. ....	2	16	6	7	5	2	3	39	6	1	-	-	1	-	4	1	2	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-
5-10	M. ....	2	22	16	4	3	1	6	51	3	2	-	-	6	-	8	2	1	1	-	1	-	-	-	-	1	-	-	1	-	1	-	-
	F. ....	2	17	20	12	6	1	4	62	6	2	-	-	6	-	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-15	M. ....	1	4	11	3	1	1	-	20	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
	F. ....	1	6	12	2	4	1	1	24	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
15-20	M. ....	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	F. ....	1	1	1	4	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
20+	M. ....	-	1	1	3	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	F. ....	-	4	6	4	1	1	1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-
								269	255																					14			-

Of the 21 cases with otorrhœa, two developed acute mastoiditis, necessitating operation, which was performed by Mr. J. M. Wishart.

Tonsillectomy was carried out on four patients, who proved to be persistent diphtheria carriers. In each case the operation was successful in rendering the patient free from infection.

The following Table shows the percentage of Scarlet Fever removals in Wards, 1936 :—

**TABLE 46.**

<i>Ward.</i>						1935 <i>Percentage</i>	1936 <i>Percentage.</i>
St. Stephen's	..	..	..	..	..	67·4	80·6
Trinity	..	..	..	..	..	88·0	92·3
St. Michael's	..	..	..	..	..	83·3	50·0
St. John's	..	..	..	..	..	77·7	83·3
St. Silas's	..	..	..	..	..	43·4	67·7
St. Paul's	..	..	..	..	..	86·2	81·2
St. Peter's	..	..	..	..	..	100·0	100·0
St. Mary's	..	..	..	..	..	100·0	83·3
St. Matthew's	.	..	..	..	..	88·5	81·8
St. Thomas's	..	..	..	..	..	56·1	94·8
Park	..	..	..	..	..	66·6	70·6
St. Luke's	..	..	..	..	..	66·6	90·0
St. Mark's	..	.	..	..	..	70·6	85·7
St. Andrew's	..	..	..	..	..	70·0	82·6
<b>TOTAL</b>	..	..	..	..	..	<hr/> 73·9 <hr/>	<hr/> 80·7 <hr/>

Monthly Admissions of Scarlet Fever Cases to the Corporation Hospital during 1936 :—

TABLE 47.

Month.	1936.			1935.		
	Cases Notified.	Cases Removed.	Percentage of Removals.	Cases Notified	Cases Removed.	Percentage of Removals.
January.. ..	19	15	78·9	89	63	70·7
February .. ..	15	14	93·3	65	54	83·0
March .. ..	19	19	100·0	48	40	83·3
April .. ..	18	16	88·8	21	12	57·1
May .. ..	21	18	85·7	25	20	80·0
June .. ..	17	11	64·7	14	12	85·7
July .. ..	13	11	84·6	11	8	72·7
August .. ..	25	20	80·0	11	9	81·8
September .. ..	24	17	70·8	23	19	82·6
October .. ..	61	45	73·7	23	12	52·1
November .. ..	51	42	82·3	16	11	68·7
December .. ..	28	23	82·1	18	9	50·0
TOTAL .. ..	311	251	80·7	364	269	73·9

Cases of scarlet fever are removed to Hospital on request by the general practitioner in charge of the case. Such request is invariably reserved for cases where home isolation or nursing presents difficulty.

### DIPHTHERIA.

One hundred and thirty-one cases, of which eight were from outside the Borough, were admitted to Hospital during 1936.

Thirty of these cases, one of whom died, proved not to be diphtheria, but were suffering from the undermentioned conditions :—

Scarlet Fever .. ..	5
Tonsillitis .. ..	21
Laryngitis... ..	2
Measles .. ..	1
Not Infectious Disease .. ..	1
	—
	30
	—

The following is an analysis of the cases admitted as diphtheria :—



The type of diphtheria prevalent throughout the year was of a less severe type than in the preceding year. Three patients died from the disease, the case mortality rate being 2·99%.

During the year two cases of laryngeal and tracheal diphtheria were admitted to the Corporation Hospital. Tracheotomy was not necessary in either of the cases.

TABLE 49.

## INCIDENCE OF DIPHTHERIA CASES ADMITTED TO HOSPITAL.

<i>Ages.</i>	<i>Males.</i>	<i>Females.</i>	<i>Totals.</i>	<i>Deaths.</i>
Under 1 year.. ..	--	1	1	—
1—2 years .. ..	1	—	1	—
2—3 years .. ..	—	4	4	—
3— 4 years.. ..	6	3	9	1
4— 5 years.. ..	5	1	6	1
5—10 years. . . .	21	18	39	—
10—15 years.. ..	17	15	32	1
15—25 years.. ..	3	15	18	—
25—35 years.. ..	3	11	14	1
35 years and over ..	1	6	7	—
TOTALS, 1936 .. ..	57	74	131	4
TOTALS, 1935 .. ..	74	89	163	23
TOTALS, 1934 .. ..	47	47	94	5
TOTALS, 1933 .. ..	70	63	133	6
TOTALS, 1932 .. ..	42	66	108	11



The following Table shows the percentage of Diphtheria removals in Wards, 1936 :—

TABLE 50.

<i>Ward.</i>					1935 <i>Percentage.</i>	1936 <i>Percentage.</i>
St. Stephen's	..	..	..	..	80·0	100·0
Trinity	..	..	..	..	100·0	100·0
St. Michael's..	..	..	..	..	93·3	100·0
St. John's	..	..	..	..	100·0	100·0
St. Silas's	..	..	..	..	100·0	100·0
St. Paul's	..	..	..	..	92·6	100·0
St. Peter's	..	..	..	..	100·0	100·0
St. Mary's	..	..	..	..	90·9	100·0
St. Matthew's	..	..	..	..	94·1	100·0
St. Thomas's	..	..	..	..	100·0	81·8
Park ..	..	..	..	..	100·0	90·0
St. Luke's	..	..	..	..	100·0	75·0
St. Mark's	..	..	..	..	100·0	100·0
St. Andrew's..	..	..	..	..	100·0	100·0
<b>TOTAL</b>	..	..	..	..	<b>95·1</b>	<b>96·4</b>

TABLE 51.

The monthly incidence of Diphtheria in Blackburn was :—

<i>Month.</i>	1936.			1935.		
	<i>Cases Notified.</i>	<i>Cases Removed.</i>	<i>Percentage of Removals.</i>	<i>Cases Notified.</i>	<i>Cases Removed.</i>	<i>Percentage of Removals.</i>
January..	9	9	100·0	15	15	100·0
February	8	8	100·0	17	17	100·0
March ..	18	18	100·0	18	18	100·0
April ..	9	9	100·0	17	17	100·0
May ..	3	3	100·0	17	16	94·1
June ..	6	5	83·3	12	12	100·0
July ..	7	7	100·0	6	5	83·3
August ..	9	9	100·0	14	13	92·8
September	8	8	100·0	8	8	100·0
October ..	8	8	100·0	9	9	100·0
November	16	16	100·0	16	16	100·0
December	11	8	72·7	14	9	64·2
<b>TOTAL ..</b>	<b>112</b>	<b>108</b>	<b>96·4</b>	<b>163</b>	<b>155</b>	<b>95·1</b>

**TABLE 52.**  
**ENTERIC FEVER.**

<i>Age Period.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>	<i>Deaths.</i>
Under 10 years .. .	1	--	1	—
10—15 years.. ..	—	—	—	—
15—25 years.. ..	1	—	1	1
25—35 years.. ..	1	3	4	—
35—45 years.. ..	1	—	1	—
45 and upwards .. .	—	—	—	—
<b>TOTAL.. ..</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>1</b>

OTHER DISEASES.

**TABLE 53.**  
**AGE PERIODS.**

<i>Disease.</i>	0—1		1—2		2—5		5—15		15—25		25—35		35—45		45 & up		Total	Deaths
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Whooping Cough ..	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—
Measles .. ..	2	—	—	—	1	1	1	—	2	—	—	—	—	—	—	—	7	—
Puerperal Fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas .. ..	—	—	—	—	—	—	1	—	2	1	—	1	1	3	2	11	2	—
Ophthalmia																		
Neonatorum ..	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—
Meningitis .. ..	—	—	—	—	—	—	5	1	2	—	1	—	1	—	—	—	10	4
No Disease .. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases ..	—	—	—	—	1	—	—	—	1	—	3	—	—	—	—	1	6	—
Chickenpox .. ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
	3	4	1	1	2	1	6	2	2	5	2	3	2	1	3	3	41	6

Selected and complicated cases of measles and whooping cough are admitted to the Corporation Hospital.

TABLE 54.

## OUT OF BOROUGH CASES.

<i>Disease.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>	<i>Deaths.</i>
Scarlet Fever... ..	12	6	18	...
Diphtheria .. ..	8	15	23	2
Puerperal Pyrexia ..	...	...	...	...
Erysipelas .. ..	2	...	2	1
Puerperal Fever .. ..	...	...	...	...
Other Diseases .. ..	5	6	11	2
TOTAL .. ..	27	27	54	5

TABLE 55.

## ADMISSIONS FROM THE BLACKBURN ROYAL INFIRMARY.

<i>Disease</i>	<i>Male.</i>	<i>Female</i>	<i>Total</i>	<i>Deaths</i>
Scarlet Fever ... ..	...	2	2	...
Meningitis ... ..	2	...	2	1
Erysipelas ... ..	3	2	5	1
Enteric Fever... ..	...	4	4	...
Diphtheria ... ..	1	1	2	2
Measles ... ..	1	...	1	...
TOTAL ... ..	7	9	16	4

## ADMISSIONS FROM QUEEN'S PARK HOSPITAL.

<i>Disease</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Deaths</i>
Scarlet Fever ... ..	...	1	1	...
Enteric Fever... ..	1	...	1	...
Diphtheria ... ..	3	2	5	...
Erysipelas ... ..	1	...	1	1
Chickenpox ... ..	1	...	1	...
Measles ... ..	1	3	4	...
Whooping Cough ... ..	...	1	1	...
TOTAL ... ..	7	7	14	1

Cases from the Blackburn and East Lancashire Royal Infirmary and Queen's Park Hospital are included in the Out-of-the-Borough Table, if the cases were not Blackburn residents.

## BACTERIOLOGICAL EXAMINATIONS.

## AT THE CORPORATION HOSPITAL.

TABLE 56.

<i>Examination and Material.</i>	1936			1935
	<i>Positive</i>	<i>Negative</i>	<i>Total</i>	<i>Total</i>
For Diphtheria Bacilli :—				
<i>Swabs—</i>				
Private Practitioners ... ..	27	419	446	863
Hospital ... ..	131	621	752	434
Others ... ..	0	0	0	0
For Tubercle Bacilli :—				
<i>Sputum—</i>				
Private Practitioners ... ..	21	86	107	124
Hospital ... ..	68	122	190	78
Tuberculosis Dispensary ...	44	144	188	299
Totals ... ..	291	1392	1683	1798

## DISINFECTION.

## Number of Rooms Sprayed :—

Tuberculosis .. .. .	198
Fever .. .. .	669
Vermin .. .. .	212
Institutions .. .. .	77
Schools .. .. .	24
Others .. .. .	132

Articles Disinfected by Steam .. .. . 25580

Number of Articles Destroyed by Consent of Owners .. .. . 565

## Amount of Disinfectant Distributed :—

Chloros .. .. .	(Gallons)	Schools ..	230
		Houses ..	92
Persons Cleansed at Disinfection Station .. .. .			13
Cleansings ... .. .			48
Library Books Fumigated .. .. .			209
Private Books Fumigated .. .. .			65
School Books Fumigated .. .. .			40

## CLEANSING OF PERSONS.

During 1936, 13 persons were dealt with at the Throstle Street Disinfecting and Cleansing Station.

The total number of baths given was 48.



*PART V.*

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Prevalence of,  
*and*  
Control over,  
Tuberculosis.



## TUBERCULOSIS.

## INCIDENCE AND MORTALITY.

During the year 139 cases of Tuberculosis, 103 Pulmonary and 36 Non-Pulmonary, were notified. In 1935 the notifications numbered 134 ; in 1934, 110 ; in 1933, 108 ; in 1932, 114 ; in 1931, 210 ; in 1930, 191 ; in 1929, 155. The notification of Tuberculosis in the area has been fairly satisfactory and there have been no cases of wilful neglect or refusal to notify.

The number of deaths in 1936 from all forms of Tuberculosis was 88 ; Pulmonary Tuberculosis caused 79 deaths, and Non-Pulmonary Tuberculosis nine. Thirteen, or 14·54% of the deaths from Tuberculosis were in respect of cases which had not been notified during life.

## RECORDS OF PREVIOUS YEARS.

<i>Deaths from Tuberculosis</i>	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927
Pulmonary ... ..	79	79	67	84	79	97	105	114	82	96
Non-Pulmonary ... ..	9	17	11	12	19	18	18	13	21	14

The number of deaths from all forms of Tuberculosis is equivalent to a rate of 0·75 deaths per 1,000 living.

## MORTALITY RATE PER 1,000 LIVING COMPARED WITH THAT OF ENGLAND AND WALES.

	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924
Blackburn...	0·75	0·80	0·65	0·78	0·79	0·93	0·97	1·01	0·82	0·88	0·93	0·86	0·86
England & Wales...	0·72	0·76	0·82	0·89	0·89	0·89	0·96	0·96	0·93	0·97	0·96	1·04	1·06

Perusal of the above Table shows that the death rate from all forms of Tuberculosis in Blackburn compares favourably with the corresponding rate for England and Wales.

Of the cases notified during the year 33 died, 28 of the deaths being from Pulmonary, and 5 from Non-Pulmonary disease.

The appended Table gives the age-groups of the cases notified and cases coming to the knowledge of the Medical Officer of Health other than by formal notification and of the deaths for the year 1936.

TABLE 57.

Age Periods.	New Cases				Deaths.			
	Pulmonary		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Under one year ... ..	—	—	—	1	—	—	—	—
1—5 years ... ..	—	—	2	4	—	—	—	1
5—10 „ ... ..	1	—	6	—	—	—	—	—
10—15 „ ... ..	1	1	2	4	—	—	1	—
15—20 „ ... ..	5	5	4	1	3	2	—	—
20—25 „ ... ..	8	10	1	3	7	5	1	—
25—35 „ ... ..	15	13	2	4	7	5	—	1
35—45 „ ... ..	17	5	1	3	16	5	—	1
45—55 „ ... ..	11	4	—	—	8	3	—	1
55—65 „ ... ..	15	4	—	—	10	4	1	—
65 and upwards ... ..	3	4	—	1	2	2	1	1
Totals ... ..	76	46	18	21	53	26	4	5

Of cases notified during the year, the attack rate corresponds, in the case of males, to 1·77 per 1,000, and of females, to 1·06 per 1,000.

### THE TUBERCULOSIS SCHEME.

During the year practitioners have referred 290 cases for examination at the Dispensary, and the Tuberculosis Officer has held 275 consultations with practitioners.

107 sputum examinations were undertaken for private practitioners and 378 in respect of patients attending the Dispensary.

During the year the Nurse made 2,338 home visits, 138 of which were in respect of ex-Service men.

The appended Table, which relates to persons who were at home during the last quarter of 1936, demonstrates the difficulty experienced in securing isolation of this type of case :—

TABLE 58.

	On First Visit.	After-wards.
No. who occupy a separate bedroom .. .. .	157	213
No. who occupy a separate parlour alone . . . .	9	13
No. who occupied a kitchen alone .. .. .	—	—
No. who occupied a shelter in yard .. .. .	—	—
No. who occupied a separate bed in a room occupied by :—		
One other person .. .. .	36	35
Two other persons .. .. .	36	32
Three other persons .. .. .	2	5
Four other persons .. .. .	1	1
Five other persons .. .. .	1	1
Many other persons (Common Lodging House, &c.) ..	6	6
No. who occupied a bed in common with :—		
One other person .. .. .	177	120
Two other persons .. .. .	3	3
Two beds in a room :—		
Two persons in each bed .. .. .	17	16
Three persons in each bed .. .. .	1	—
No. who occupy a bed in common with :—		
One other person, and another person in room .. ..	17	18
TOTAL .. .. .	463	463

### THE TREATMENT OF TUBERCULOSIS.

At the beginning of 1936 there were 438 Pulmonary and 123 Non-Pulmonary cases on the Dispensary Register.

The Tuberculosis Notification Register is a Register of all notified cases of Tuberculosis, whereas the Dispensary Register refers only to cases actually attending the Dispensary.

During the year 378 Pulmonary and 20 Non-Pulmonary cases were added to the Register, consequently 866 Pulmonary, and 143 Non-Pulmonary cases

were dealt with during the year and 500 names were removed by reason of :— Recovered, 27 ; died, 70 ; transferred to other areas and lost sight of, 76 ; Non-Tuberculous, 327.

At the end of the year there were 509 names on the register, comprising 381 Pulmonary cases, 103 Non-Pulmonary cases and 25 cases in which the diagnosis had not been completed.

Of cases on the Register on December 31st, 1936, 29 were receiving no form of treatment. The majority of these were following their ordinary occupations.

### SANATORIUM TREATMENT.

Blackburn patients are admitted either to the Sanatorium Block at the Corporation Hospital, or to Meathop Sanatorium, Grange-over-Sands, where the Corporation reserves ten beds. The more advanced cases are received into the Corporation Hospital, the early cases, or those which have improved under treatment at the Corporation Hospital, being drafted to Meathop.

At the beginning of the year 26 males, 17 females, and two children were in-patients in the Sanatorium block ; during the year 80 males, 42 females, and nine children were admitted ; on December 31st, 1936, 17 males and nine females were still undergoing treatment. In the course of the year 73 males, 45 females, and 11 children were discharged. Sixteen males and five females died.

During the year the average number of beds occupied by Tuberculosis cases at the Corporation Hospital was 40·75.

The appended Table shows the condition of patients on discharge from the Sanatorium Block :—

				<i>Disease</i>		<i>Much</i>		<i>Not</i>			
				<i>Quiescent</i>		<i>Improved</i>		<i>No Change</i>		<i>Tuberculous</i>	
				</							

At the commencement of the year four males and six females were in-patients at Meathop Sanatorium, while during 1936, 10 males and six females were admitted. At the end of the year five males and five females remained at Meathop. The appended Table shows the condition of patients on discharge from Meathop :—

				<i>Disease</i>	<i>Much</i>					
				<i>Quiescent</i>	<i>Improved</i>	<i>No Change</i>			<i>Dead</i>	
<b>Males</b>	...	...	...	2	...	5	...	2	...	—
<b>Females</b>	...	...	...	4	...	1	...	2	...	—
				—	—	—	—	—	—	—
				6	...	3	...	4	...	—
				—	—	—	—	—	—	—

*Artificial Pneumothorax.*—During the year nine inductions of artificial pneumothorax were carried out, the treatment being subsequently discontinued in one case. Two patients, in whose cases it was deemed advisable to attempt collapse therapy, refused treatment, and in one further case the attempts to induce pneumothorax proved unsuccessful.

Five patients were transferred to Meathop Sanatorium, where collapse was maintained, the remaining four attending the Corporation Hospital as out-patients for refills after their discharge. One out-patient was attending at the commencement of the year, and one patient was transferred from another authority, but subsequently left the area. In all 129 refills were carried out during the year.

#### NON-PULMONARY TUBERCULOSIS.

During the year nine deaths were certified to be due to Non-Pulmonary Tuberculosis, compared with 17 in 1935, 11 in 1934, 12 in 1933, 19 in 1932, 18 in 1931, 18 in 1930, and 13 in 1929. The deaths were due to :—

						<i>Male.</i>	<i>Female.</i>
Tuberculous Meningitis	...	...	...	...	...	1	0
Bone and Joint Tuberculosis...	...	...	...	...	...	1	1
Intestinal Tuberculosis	...	...	...	...	...	1	4
Tuberculosis of other organs...	...	...	...	...	...	1	0



Thirty-six cases of Non-Pulmonary Tuberculosis were notified. The diagnoses were :—

						Male.	Female.
Tuberculous Glands of Neck .. .. .	..	..	..	..	..	8	6
Abdominal Tuberculosis .. .. .	..	..	..	..	..	2	7
Tuberculous Joint Disease .. .. .	..	..	..	..	..	3	0
Tuberculous Bone Disease .. .. .	..	..	..	..	..	3	4
Tuberculous Meningitis ... .. .	...	...	...	...	...	0	1
Kidney ... .. .	...	...	...	...	...	1	0
Skin ... .. .	...	...	...	...	...	0	1

### BONE AND JOINT TUBERCULOSIS.

Twenty-five cases of bone or joint tuberculosis were examined by Dr. Briggs at the Special Orthopædic Clinic.

### DENTAL TREATMENT OF TUBERCULOSIS PATIENTS.

The following Table gives details of Dental work carried out as part of the Tuberculosis Scheme :—

The Dental Surgeons carried out the following work in 1936 :—

Number of Patients .. .. .	..	..	..	..	..	38
Permanent Teeth extracted .. .. .	..	..	..	..	..	70
Temporary Teeth extracted .. .. .	..	..	..	..	..	5
Permanent Teeth Filled .. .. .	..	..	..	..	..	3
Other Operations .. .. .	..	..	..	..	..	8
Number of Sessions held .. .. .	..	..	..	..	..	12

The following treatment was carried out at Meathop Sanatorium by the Dental Surgeon attached to that Institution. The cost of this treatment was borne by the Health Committee.

Number of Patients Treated .. .. .	..	..	..	..	..	4
Part Dentures supplied ... .. .	...	...	...	...	...	3
Permanent Teeth Extracted .. .. .	...	...	...	...	...	13

### ULTRA-VIOLET LIGHT TREATMENT.

Particulars of the Ultra-Violet Light Treatment of Tuberculosis patients will be found in Table 86.

### PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.

It was not found necessary to take any action during the year under the above regulations relating to tuberculous employees in the milk trade.



TABLE 59.

FORM T. 137/1931 MINISTRY OF HEALTH.  
PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.

		FORMAL NOTIFICATIONS.											
		NUMBER OF PRIMARY NOTIFICATIONS OF NEW CASES OF TUBERCULOSIS.											
AGE PERIODS... ..	...	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	TOTAL ALL AGES
Pulmonary Males	...	—	—	1	1	4	6	13	15	9	12	3	64
“ Females...	...	—	—	—	1	5	8	12	5	3	3	2	39
Non-Pulmonary Males	...	—	2	6	1	4	1	2	1	—	—	—	17
“ Females...	...	1	4	—	4	—	3	4	2	—	—	1	19
													27

## PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1924.

Number of cases of Tuberculosis remaining on the Register of Notifications kept by the Medical Officer of Health of the County Borough on the 31st December, 1936.

TOTAL CASES.	PULMONARY.			NON-PULMONARY.		
	Males	Females	Total.	Males	Females	Total
767	322	217	539	122	106	228

TABLE 60.

(FORM T. 145 OF THE MINISTRY OF HEALTH).

## TUBERCULOSIS DISPENSARY—WORK CARRIED OUT DURING THE YEAR 1936.

## PART "A"

DIAGNOSIS	PULMONARY				NON-PULMONARY				TOTAL				GRAND TOTAL	
	Ad'lts		Chil'n		Ad'lts		Chil'n		Ad'lts		Chil'n			
	M	F	M	F	M	F	M	F	M	F	M	F		
A.—New Cases examined during the year (excluding contacts) :														
(a) Definitely tuberculous ...	58	36	3	—	6	5	2	6	64	41	5	6	116	
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	3	7	2	3	15	
(c) Non-tuberculous ... ..	—	—	—	—	—	—	—	—	72	97	9	11	189	
B.—Contacts examined during the year :														
(a) Definitely tuberculous ...	1	—	—	—	—	—	—	1	1	—	—	1	2	
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	3	2	3	2	10	
(c) Non-tuberculous ... ..	—	—	—	—	—	—	—	—	9	13	7	33	62	
C.—Cases written off the Dispensary Register as :—														
(a) Recovered ... ..	4	8	2	1	2	1	3	6	6	9	5	7	27	
(b) Non tuberculous (including any such cases previously diagnosed and entered on the Dispensary register as tuberculous) ... ..	—	—	—	—	—	—	—	—	104	119	35	69	327	
D.—Number of Persons on Dispensary Register on Dec. 31st :														
(a) Diagnosis completed ... ..	211	142	13	15	14	18	42	29	225	160	55	44	484	
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	6	9	5	5	25	

1.—Number of Cases on Dispensary Register on January 1st	..	...	...	611
2.—Number of Cases Transferred from other Areas and Cases returned after Discharge under Head 3 in previous years...	...	...	...	4
3.—Number of Cases Transferred to other Areas, cases not desiring further assistance under Scheme and cases "lost sight of"	...	...	...	76
4.—Cases written off during year as Dead (all causes)...	...	...	...	70
5.—Number of Attendances at the Dispensary (including Contacts)	...	...	4316	
6.—Number of Insured Persons under Domiciliary Treatment on 31st December..			226	
7.—Number of Consultations with Medical Practitioners : (a) Personal ...	...	275		
(b) Other	...	107		
8.—Number of Visits by Tuberculosis Officer to homes (including personal consultations)...	...	...	...	35
9.—Number of Visits by Nurses or Health Visitors to Homes for Dispensary Purposes	...	...	...	2338
10.—Number of :—(a) Specimens of sputum, etc., examined...	...	...	485	
(b) X-Ray Examinations made in connection with Dispensary work	...	...	...	519
11.—Number of "Recovered" Cases restored to Dispensary Register	...	...	1	
12.—Number of "T.B. Plus" Cases on Dispensary Register on December 31st	...	200		

[In Form T. 145 above it will be noted that the number of contacts who attended the Dispensary was 74, a figure which is admittedly on the low side. Great difficulty is experienced (as is shown by the fact that the Tuberculosis Nurse visited 3,123 contacts) in securing the attendance of contacts at the Dispensary.]

TABLE 61. (FORM T. 145 OF THE MINISTRY OF HEALTH).

PART "G."

RESULTS OF TREATMENT.

Classification on Admission to the Institution	Condition at time of Discharge	DURATION OF RESIDENTIAL TREATMENT IN THE INSTITUTION												GRAND TOTALS				
		Under 3 months but exc'g 28 days						3-6 months			6-12 months				More than 12 months			TOTALS
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.					
Class T.B. Minus. ...	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	2 4 2	4 3 ...	... ... ...	2 6 1	6 3 ...	1 1 ...	2 1 1	4 2 1	... ... ...	... ... ...	6 11 4	14 8 1	1 1 ...	21 20 5			
Class T.B. plus. Group I. ... ..	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	... 2 ...	... 4 ...	... ... ...	1 ... ...	... 1 ...	... ... ...	... 2 ...	1 1 ...	... ... ...	... ... ...	1 4 ...	1 6 ...	... ... ...	2 10 ...			
Class T.B. plus. Group II. ... ..	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	1 5 1	... 2 ...	... ... ...	1 7 1	... ... ...	... ... ...	... 1 ...	2 1 ...	... ... ...	... ... ...	2 13 2	2 5 ...	... ... ...	4 18 2			
Class T.B. plus. Group 3. ... ..	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	... 9 3	... ... 2	... ... ...	1 10 2	1 5 1	... ... ...	... 5 ...	... 1 ...	... ... ...	... 1 ...	1 25 5	1 6 3	... ... ...	2 31 8			
TOTAL (PULMONARY)...		29	15	...	32	17	2	12	13	...	1	74	47	2	123			
PULMONARY TUBERCULOSIS.																		
Bones and Joints...	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Abdominal ... ..	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	...	...	1	...	...	...	...	...	...	...	...	...	1	...			
Other Organs ... ..	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Peripheral Glands ...	Quiescent ... .. Not Quiescent ... .. Died in Institution ...	...	...	...	...	...	1	...	...	...	...	...	...	1 1 ...	1 2 ...			
TOTAL (NON PULMONARY)		...	...	1	1	...	1	...	...	...	...	1	...	3	4			
NON-PULMONARY TUBERCULOSIS.																		

TABLE 62.

(FORM T. 145 OF THE MINISTRY OF HEALTH).

PART "C."—NUMBER OF BEDS AVAILABLE FOR THE TREATMENT OF TUBERCULOSIS ON THE  
31ST DECEMBER IN INSTITUTIONS BELONGING TO THE COUNCIL.

NAME OF INSTITUTION	FOR PULMONARY CASES		FOR NON PULMONARY CASES		TOTAL
	Adults	Children	Adults	Children	
CORPORATION HOSPITAL... ..	54	4	...	6	64
MEATHOP SANATORIUM ... ..	10	...	...	...	10
Queen's Park Hospital ... ..	18	...	4	15	37

TABLE 63.

PART "D."—RETURN SHOWING EXTENT OF RESIDENTIAL TREATMENT DURING THE  
YEAR 1936.

		In Institu- tions on Jan. 1st	Admitt'd during the year	Dis- charged during the year	Died in the Institu- tions	In Institu- tions on Dec. 31st.
Doubtfully Tuberculous Cases Admitted for Observation	Adult Males...	1	16	16	...	1
	Adult Females.	1	12	13	...	...
	Children... ..	1	6	6	...	1
	Total ... ..	3	34	35	...	2
Number of patients suffering from Pulmonary Tuberculosis	Adult Males ...	29	81	72	16	22
	Adult Females.	22	40	44	5	13
	Children... ..	...	2	2	...	...
	Total ... ..	51	123	118	21	35
Number of patients suffering from Non- Pulmonary Tuberculosis	Adult Males...	...	2	2	...	...
	Adult Females.	...	...	...	...	...
	Children... ..	1	2	3	...	...
	Total ... ..	1	4	5	...	...
GRAND TOTAL ...		55	161	158	21	37



TABLE 64. (FORM T. 145 OF THE MINISTRY OF HEALTH).

## PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1936.					1936.				
				Class T.B. minus	Class T.B. plus.				Class T.B. minus	Class T.B. plus.			
					Group 1	Group 2	Group 3	Total (Class T.B. plus)		Group 1	Group 2	Group 3	Total (Class T.B. plus)
(a) Remaining on Dispensary Register on 31st December.	DISEASE ARRESTED ...	Adults	M.	19	5	8	3	16	...	...	...	...	...
			F.	11	1	2	2	5	...	...	...	...	...
		Children		12	...	...	...	...	...	...	...	...	...
	DISEASE NOT ARRESTED .	Adults	M.	32	14	33	11	58	16	3	9	11	23
			F.	16	15	25	2	42	18	2	3	6	11
		Children		6	...	...	...	...	2	...	...	...	...
	Condition not ascertained during year ... ..			49	23	14	8	45	...	...	...	...	...
Total on Dispensary Register on December 31st ... ..			145	58	82	26	166	36	5	12	17	34	
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered	Adults	M.	24	...	1	...	1	...	...	...	...	...
			F.	21	3	3	...	6	...	...	...	...	...
		Children		9	...	1	...	1	...	...	...	...	...
	Lost sight of or otherwise removed from Dispensary Register... ..			582	107	74	34	214	3	...	...	...	...
	Dead... ..	Adults	M.	70	50	151	287	488	9	...	1	9	10
			F.	57	40	129	209	378	1	...	...	5	5
		Children		32	7	33	38	78	...	...	...	...	...
Total written off Dispensary Register ... ..			795	207	392	568	1166	13	...	1	14	15	
GRAND TOTALS ... ..			940	265	474	593	1332	49	5	13	31	49	

TABLE 64—Continued

## NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1936.					1936.				
				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
(a) Remaining on Dispensary Register on 31st December.	Disease Arrested ... ..	Adults	M.	2	...	...	...	2	...	...	...	2	2
			F.	...	1	3	2	6	...	1	...	1	2
		Children	2	10	...	14	26	...	1	1	2	4	
	Disease Not Arrested ... ..	Adults	M.	...	...	...	...	2	...	1	...	3	
			F.	1	...	2	1	4	...	...	...	2	2
		Children	1	5	4	14	24	1	2	...	2	5	
	Condition not ascertained during year ... ..			8	4	4	7	23	...	...	...	...	...
	Total on Dispensary Register on December 31st ... ..			14	20	13	38	85	3	4	2	9	18
	Transferred to Pulmonary ... ..			...	...	...	...	...	...	...	...	...	...
	(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered	Adults	M.	3	1	...	3	7	...	...	...	...
F.				1	1	1	5	8	...	...	...	...	...
Children			5	5	4	24	38	...	...	...	...	...	
Lost sight of or otherwise removed from Dispensary Register ...			76	70	59	255	460	1	...	...	...	1	
Dead... ..		Adults	M.	22	16	8	5	51	...	1	...	...	1
			F.	14	17	10	2	43	...	...	...	...	...
		Children	18	34	27	6	85	...	...	...	...	...	
Total written off Dispensary Register ... ..			139	144	109	300	692	1	1	...	...	2	
GRAND TOTALS (excluding those transferred to Pulmonary) ...			153	165	123	338	779	4	5	2	9	20	

**TABLE 65.**  
TABLE SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM THE BLACKBURN CORPORATION HOSPITAL DURING 1936.

		Condition at time of Discharge.	PULMONARY TUBERCULOSIS.—Duration of Residential Treatment.												TOTAL
			Under 3 months			3-6 months.			6-12 months			More than 12 months.			
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
CLASS A. Cases in which Tubercle Bacilli have never been found ...	Quiescent ...	...	2	4	-	2	5	1	2	3	-	-	-	-	19
	Not Quiescent ...	...	6	4	-	6	3	1	-	2	-	-	-	-	22
	Died in Institution ...	...	4	-	-	1	-	-	1	1	-	-	-	-	7
CLASS B 1 Early cases in which Tubercle Bacilli have been found ...	Quiescent ...	...	1	-	-	1	-	-	-	1	-	-	-	-	3
	Not Quiescent ...	...	2	5	-	-	1	-	2	1	-	-	-	-	11
	Died in Institution ...	...	-	-	-	-	-	-	-	-	-	-	-	-	-
CLASS B 2 Intermediate Cases in which Tubercle Bacilli have been found ...	Quiescent ...	...	1	-	-	-	-	-	-	-	-	-	-	-	1
	Not Quiescent ...	...	6	2	-	6	-	-	1	1	-	-	-	-	16
	Died in Institution ...	...	1	-	-	1	-	-	-	-	-	-	-	-	2
CLASS B 3 Advanced cases in which Tubercle Bacilli have been found ...	Quiescent ...	...	-	-	-	1	1	-	-	-	-	-	-	-	2
	Not Quiescent ...	...	9	-	-	9	4	-	4	1	-	1	-	-	28
	Died in Institution ...	...	4	4	-	2	1	-	-	-	-	-	-	-	11
TOTAL ...		...	36	19	-	29	15	2	10	10	-	1	-	-	122
DIAGNOSIS ON DISCHARGE FROM OBSERVATION		FOR PULMONARY TUBERCULOSIS						FOR NON-PULMONARY TUBERCULOSIS						TOTALS	
		Stay Under 4 Weeks			Stay Over 4 Weeks			Stay Under 3 Weeks			Stay Over 4 Weeks				
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
OBSERVATION CASES.	TUBERCULOUS ...	...	5	4	-	4	2	2	-	-	-	-	-	-	17
	Non-Tuberculous ...	...	1	-	-	4	4	2	-	-	-	-	-	-	11
	Doubtful ...	...	2	1	-	-	2	2	-	-	-	-	-	-	7
TOTALS ...		...	8	5	-	8	8	6	-	-	-	-	-	-	35

TABLE 66.

ANNUAL RETURN SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM  
MEATHOP SANATORIUM DURING THE YEAR 1936.

	Condition at time of discharge.	PULMONARY TUBERCULOSIS.—Duration of Residential Treatment.									
		Under 3 months			3-6 months.			6-12 months.			Total.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
CLASS A Cases in which Tubercle Bacilli have never been found ... ..	Quiescent ... ..	1	-	-	-	1	-	-	-	-	3
	Not Quiescent ... ..	-	-	-	1	-	-	-	-	-	1
	Died in Institution ... ..	-	-	-	-	-	-	-	-	-	-
CLASS B 1 Early Cases in which Tubercle Bacilli have been found ... ..	Quiescent ... ..	-	-	-	-	-	-	-	-	-	-
	Not Quiescent ... ..	1	-	-	-	-	-	-	-	-	1
	Died in Institution ... ..	-	-	-	-	-	-	-	-	-	-
CLASS B 2 Intermediate Cases in which Tubercle Bacilli have been found ... ..	Quiescent ... ..	-	-	-	-	1	-	-	-	-	1
	Not Quiescent ... ..	-	-	-	1	-	-	-	2	-	5
	Died in Institution ... ..	-	-	-	-	-	-	-	-	-	-
CLASS B 3 Advanced Cases in which Tubercle Bacilli have been found ... ..	Quiescent ... ..	-	-	-	-	-	-	-	-	-	-
	Not Quiescent ... ..	1	-	-	2	1	-	1	-	-	5
	Died in Institution ... ..	-	-	-	-	-	-	-	-	-	-
Total	...	3	-	-	4	3	-	1	3	-	16

**TABLE 67.**  
SHOWING THE EXTENT OF RESIDENTIAL TREATMENT FOR PULMONARY TUBERCULOSIS DURING 1936.

			In Institutions on Jan. 1st.	Admitted during 1936.	Discharged during 1936.	Died in the Institutions.	In Institutions on Dec. 31st, 1936.
Meathop Sanatorium	Adults	M.	4	10	9	—	5
		F.	6	6	7	—	5
	Children	M.	—	—	—	—	—
		F.	—	—	—	—	—
Corporation Hospital.	Adults	M.	26	80	73	16	17
		F.	17	42	45	5	9
	Children	M.	1	2	3	—	—
		F.	1	7	8	—	—
TOTAL	...		55	147	145	21	36

TABLE 68.

CONDITION AT END OF 1936 OF PATIENTS TREATED AT AND DISCHARGED  
FROM THE BLACKBURN CORPORATION HOSPITAL

Year Dis- charged	At full work. No Sym- ptoms 1	At full work, but with difficulty 2	Not able to work full time owing to ill health. 3	Not able to work but able to get about 4	Confined to the house 5	Confined to bed 6	Died (not in the In- stitution at time of first admis- sion). 7	Cannot trace 8	Total.
1916 and previous	16	—	—	—	—	1	192	79	288
1917	—	—	—	1	—	—	29	8	38
1918	7	—	—	2	—	—	39	9	57
1919	16	1	—	—	—	—	48	8	72
1920	13	—	1	—	—	—	48	11	73
1921	16	1	5	2	1	—	47	5	77
1922	20	5	4	0	1	—	56	17	103
1923	25	4	2	6	—	—	69	17	123
1924	10	2	1	6	—	1	66	15	101
1925	11	4	1	2	2	—	59	23	102
1926	3	4	2	4	—	—	29	13	55
1927	12	2	1	4	1	—	15	10	45
1928	4	—	2	6	—	—	24	6	42
1929	1	1	3	4	—	—	18	4	31
1930	5	1	4	11	4	3	27	6	61
1931	7	7	9	41	4	2	36	8	114
1932	4	13	22	29	5	—	57	2	132
1933	8	8	5	9	1	1	31	1	64
1934	12	21	14	9	4	4	46	7	117
1935	16	3	5	14	3	3	29	4	77
1936	32	7	4	43	14	4	20	4	128
Total..	238	84	85	193	40	19	985	257	1901
%	12.5	4.4	4.4	10.1	2.1	1.0	51.9	13.5	—



TABLE 69.

CONDITION AT END OF 1936 OF PATIENTS TREATED AT AND DISCHARGED  
FROM MEATHOP SANATORIUM.

Year Dis- charged.	At full work. No Symp- toms. 1	At full work, but with difficulty 2	Not able to work full time owing to ill health 3	Not able to work but able to get about 4	Confined to the house. 5	Confined to bed. 6	Dead 7	Can- not trace 8	Total.
1916 and previous	20	—	—	—	—	—	118	77	215
1917	1	—	—	1	—	—	21	13	36
1918	4	—	1	2	—	—	23	10	40
1919	6	1	1	1	—	—	21	18	48
1920	4	1	—	2	—	—	21	14	42
1921	9	1	1	3	—	—	13	15	42
1922	4	—	—	—	—	—	12	6	22
1923	2	1	1	4	—	—	9	7	24
1924	1	—	—	3	—	—	14	8	26
1925	2	1	—	1	—	1	16	4	25
1926	1	1	—	2	—	—	11	11	26
1927	4	—	1	5	—	—	6	3	19
1928	1	2	1	—	—	—	10	5	19
1929	1	1	1	1	—	1	8	—	13
1930	—	2	—	5	—	—	13	1	21
1931	1	2	2	3	—	—	5	4	17
1932	1	2	2	8	1	—	4	5	23
1933	2	1	1	—	—	—	9	1	14
1934	4	1	—	2	2	—	4	2	15
1935	—	2	—	7	3	—	2	2	16
1936	4	1	—	9	1	1	3	1	20
Total	72	20	12	59	7	3	343	207	723
%	10.0	2.7	1.6	8.1	1.0	0.4	47.4	28.6	—

TABLE 70.

## SUMMARY OF DISPENSARY STATISTICS AND OF HOME VISITING.

	1936	1935
Number of persons placed under observation for purpose of diagnosis .. .. .	327	196
Number of persons for whom the period of observation exceeded two months .. .. .	93	48
Number of visits paid by the Tuberculosis Officer to the homes of patients .. .. .	35	55
Number of visits paid by Nurses to the homes of patients for dispensary purposes .. .. .	2338	2502
Number of attendances of patients at the Dispensary :—		
Insured .. .. .	2942	3827
Not Insured .. .. .	1374	2008
Total .. .. .	4316	5835
Number of patients under Domiciliary Treatment :—		
Pulmonary .. .. .	192	164
Non-Pulmonary .. .. .	72	50
Total .. .. .	264	214
Number of reports received from practitioners in respect of patients on Domiciliary Treatment .. .. .	35	72
Number of specimens of sputum examined in connection with the work of the Dispensary :—		
Positive .. .. .	133	88
Negative .. .. .	352	335
Total .. .. .	485	423
Number of houses disinfected during the year :—		
(i) On removal of patient to Hospital .. .. .	97	48
(ii) On death .. .. .	41	16
(iii) On changing address.. .. .	3	3
Number of Reports made to Ministry of Pensions by the Tuberculosis Officer on general progress and capacity for work of Tuberculous Discharged ex-Service men...	31	38



*PART VI.*

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Venereal Diseases.

# VENEREAL DISEASES.

## (a) *The Royal Infirmary Centre :*

Seven hundred and forty-five patients, of whom 390 were Blackburn residents, attended this Centre for the first time during the year. Of the Blackburn cases 114 were suffering from gonorrhœa, 42 from syphilis, and 234 from conditions non-venereal.

The appended Table shows the number of new cases seen yearly at the Royal Infirmary since 1927.

<i>Year.</i>		<i>Male.</i>		<i>Female.</i>		<i>Total.</i>
1927	..	300	..	103	..	403
1928	..	349	..	291	..	640
1929	..	380	..	251	..	631
1930	..	365	..	265	..	630
1931	..	384	..	269	..	653
1932	..	440	..	267	..	707
1933	..	412	..	210	..	622
1934	..	365	..	315	..	680
1935	..	440	..	278	..	718
1936	..	429	..	316	..	745

The total number of attendances for all patients was 23,200, 12,412 of which were in respect of Blackburn residents. The aggregate number of in-patient days at the Royal Infirmary was 168 for Blackburn cases, and 169 for cases from other sources.

During the year 76 males and 21 females ceased to attend the Clinic before completion of the full course, and 84 cases, 40 males, and 44 females, discontinued attendance after completion of treatment, but before final tests for cure had been carried out.

For some time past the attendances at both male and female clinics at the Royal Infirmary have overtaxed staff resources. Since the appointment of Dr. Thomson her services have been available for duty at the female clinic with Dr. Baird, and the clinic has become less unwieldy.

No increase of staff has yet been possible at the men's clinic, where the attendances per session are sometimes as high as eighty. To reduce the average attendances it is proposed to hold an additional weekly session devoted to specialised forms of treatment and examinations, etc. The other two weekly sessions will be attended by cases which need only routine treatment. The

Infirmiry Board of Management and the Town Council have agreed to the appointment of a Clinical Assistant for general duties at their Clinics. This appointment, together with the establishment of an additional session, will overcome certain of the difficulties with which your venereal diseases officer has had to cope.

It has for long been realised that the accommodation at the Royal Infirmary was scarcely suitable for the purposes of a large venereal diseases centre. The waiting room, for instance, is so situated as to deprive the patients of the privacy desirable for this type of case. In addition, the general lay-out of the department and the arrangement of the rooms not only involves a greater expenditure of time per case than in specially designed premises, but also makes it a matter of great difficulty for the venereal diseases officer to exercise that personal supervision which is essential for the efficient administration of the Clinic.

In view of the foregoing the Ministry were asked to send down an expert to confer with the officials concerned regarding the Venereal Diseases Scheme. Following his inspection representatives of the Corporation met members of the Infirmary Board of Management with a view to securing the erection of an *ad hoc* clinic in the Infirmary grounds. As a result of this discussion, plans and estimates are now being prepared.

(b) *The Victoria Street Centre :*

This centre is for the treatment of women maritally infected, and of children congenitally or accidentally infected. The Clinic forms part of the Maternity and Child Welfare Scheme, and all cases referred for treatment have passed through the Welfare Centres.

At the beginning of the year 11 females were under treatment for syphilis, and 47 females for gonorrhœa. In the course of the year the following cases were dealt with for the first time :—Gonorrhœa, 26 ; syphilis, 2 ; non-venereal conditions, 58. The total number of attendances made was 1,238.



TABLE 71.

RETURN relating to all persons who were treated at the Treatment Centre at the ROYAL INFIRMARY, BLACKBURN, during the year ended the 31st December, 1936.

FORM V.D. (R) (REVISED).

	Syphilis		Soft Chancres		Gonorrhoea		Conditions other than Venereal		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Number of cases on 1st January under treatment or observation ... ..	129	93	1	...	207	168	28	47	365	308
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection... ..	4	5	...	...	10	4	...	...	14	9
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from :—										
Syphilis, primary ... ..	8	...	...	...	...	...	...	...	8	...
" secondary ... ..	10	3	...	...	...	...	...	...	10	3
" latent in 1st year of infection... ..	1	...	...	...	...	...	...	...	1	...
" all later stages ... ..	30	25	...	...	...	...	...	...	30	25
" congenital... ..	4	7	...	...	...	...	...	...	4	7
Soft Chancres ... ..	...	...	...	...	...	...	...	...	...	...
Gonorrhoea, 1st year of infection ... ..	...	...	...	...	133	50	...	...	133	50
" later ... ..	...	...	...	...	7	38	...	...	7	38
Conditions other than venereal ... ..	...	...	...	...	...	...	236	193	236	193
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection ... ..	...	...	...	...	2	...	...	...	2	...
TOTALS OF ITEMS 1, 2, 3 AND 4 ... ..	186	133	1	...	359	260	264	240	810	633

5. Number of cases discharged after completion of treatment and final tests of cure or after diagnosis as non-venereal ... ..	14	9	...	...	34	18	233	204	281	231
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from :—										
Syphilis, primary ... ..	8	1	...	...	...	...	...	...	8	1
" secondary ... ..	4	...	...	...	...	...	...	...	4	...
" latent in 1st year of infection... ..	...	...	...	...	...	...	...	...	...	...
" all later stages ... ..	19	6	...	...	...	...	...	...	19	6
" congenital... ..	1	3	...	...	...	...	...	...	1	3
TOTALS OF ITEMS 5 AND 6 ... ..	46	29	...	...	107	66	466	408	502	470



TABLE 71—Continued.

14. Chief preparations used in treatment of Syphilis :—					
(a) Names of preparations ... ..	...	Approved Compounds	Others	Mercury	Bismuth Bicreol Iodoform Bismuthate Bismostab Quinine Bivatol Stabismol Bismogenal
		Neokharsivan, Stabilarstan, Sulfarsenol, Silver Salvarsan, Kharsulphan, Myo-Salvarsan	Trypobromide Pil. Hydrarg. Hyd. & Creta.		
(b) Total number of injections given (out-patients and in-patients) ... ..	...	1652	95	...	3645

  

15. PATHOLOGICAL WORK :—					
(a) Number of specimens examined at and by the medical officer of the treatment centre ... ..	...	MICROSCOPICAL for Syphilis	Cultural for Gonorrhoea	SÉRUM for Syphilis	Cerebro-spinal fluid
		for Gonorrhoea	Gonorrhoea	Gonorrhoea	Others for diagnosis of Venereal Disease
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory.	...	...	...	...	...
	13	2231	94	875	41
				6	28

STATEMENT SHOWING THE SERVICES RENDERED AT THE TREATMENT CENTRE DURING THE YEAR, CLASSIFIED  
ACCORDING TO THE AREAS IN WHICH THE PATIENTS RESIDED.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings ... ..	Blackburn	Lancashire	Preston	Total
A. Number of cases in Items 3 and 4 from each area found to be suffering from :—				
Syphilis ... ..	42	46	...	88
Soft Chancre ... ..	...	...	...	...
Gonorrhoea ... ..	114	112	2	228
Conditions other than venereal ... ..	234	195	...	429
TOTAL ... ..	390	353	2	745
B. Total number of attendances of all patients residing in each area ... ..	12412	10766	22	23200
C. Aggregate number of "In-patient days" of all patients residing in each area ... ..	168	169	...	337

(Signed) DOROTHEA I. BAIRD,  
A. SEBBA,  
Medical Officers of the Treatment Centre.

February 15th, 1937.

TABLE 72.

FORM V.D. (R) (REVISED).

RETURN relating to all persons who were treated at the Treatment Centre at the Health Department Clinic, Blackburn, during the year ended the 31st December, 1936.

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than venereal		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Number of cases on 1st January under treatment or observation ... ..	...	11	...	...	...	47	...	...	...	58
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection... ..	...	...	...	...	...	6	...	...	...	6
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from :—										
Syphilis, primary ... ..	...	...	...	...	...	...	...	...	...	...
" secondary ... ..	...	...	...	...	...	...	...	...	...	...
" latent in 1st year of infection ... ..	...	...	...	...	...	...	...	...	...	...
" all later stages ... ..	...	2	...	...	...	...	...	...	...	2
" congenital... ..	...	...	...	...	...	...	...	...	...	...
Soft Chancre ... ..	...	...	...	...	...	...	...	...	...	...
Gonorrhoea, 1st year of infection ... ..	...	...	...	...	...	16	...	...	...	16
" later ... ..	...	...	...	...	...	10	...	...	...	10
Conditions other than venereal ... ..	...	...	...	...	...	...	...	58	...	58
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection ... ..	...	...	...	...	...	...	...	...	...	...
TOTALS OF ITEMS 1, 2, 3 AND 4 ... ..	...	13	...	...	...	79	...	58	...	150
5. Number of cases discharged after completion of treatment and final tests of cure or after diagnosis as non-venereal ... ..	...	...	...	...	...	6	...	58	...	64
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from :—										
Syphilis, primary ... ..	...	...	...	...	...	...	...	...	...	...
" secondary ... ..	...	...	...	...	...	...	...	...	...	...
" latent in 1st year of infection ... ..	...	...	...	...	...	...	...	...	...	...
" all later stages ... ..	...	3	...	...	...	...	...	...	...	3
" congenital... ..	...	...	...	...	...	...	...	...	...	...





TABLE 72—Continued.

14. Chief preparations used in treatment of Syphilis :—					
(a) Names of preparations ...	...	Approved Arsenobenzene Compounds Neokharsivan, Stabilarisan, Sulfarsenol, Myo-salvarsan	Others	Mercury Pil. Hydrarg. Hyd. c̄ Creta. Mercury Sulphide	Bismuth Bicreol.
(b) Total number of injections given (out-patients and in-patients) ...	...	50	...	...	131
15. PATHOLOGICAL WORK :—					
(a) Number of specimens examined at and by the medical officer of the treatment centre ...	...	MICROSCOPICAL for Syphilis	Cultural for Gonorrhœa	SERUM for Syphilis	Others for diagnosis of Venereal Disease
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory.	...	...	...	...	...
	...	428	...	46	...

STATEMENT SHOWING THE SERVICES RENDERED AT THE TREATMENT CENTRE DURING THE YEAR, CLASSIFIED  
ACCORDING TO THE AREAS IN WHICH THE PATIENTS RESIDED.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings ... ..	Blackburn	Cherry Tree	Clayton-le-Moors	Gt. Harwood	Knuzden	Clayton-le-Dale	Mellor	Oswaldtwistle	Accrington	Total
A. Number of cases in Items 3 and 4 from each area found to be suffering from :—										
Syphilis ... ..	1	...	...	...	...	...	...	1	...	2
Soft Chancre ... ..	...	...	...	...	...	...	...	...	...	...
Gonorrhoea ... ..	23	1	1	1	...	...	...	...	...	26
Conditions other than venereal ... ..	53	...	...	...	1	1	1	1	1	53
TOTAL ... ..	77	1	1	1	1	1	1	2	1	86
B. Total number of attendances of all patients residing in each area ... ..	1200	1	16	3	1	8	2	5	2	1238
C. Aggregate number of "In-patient days" of all patients residing in each area... ..	...	...	...	...	...	...	...	...	...	...

29th January, 1937.

(Signed) DOROTHEA I. BAIRD,  
Medical Officer of the Treatment Centre.

## BLACKBURN ROYAL INFIRMARY—V.D. Beds : Male 2 ; Female 2.

## PARTICULARS OF STAFF.

	Duties.	If Employed Whole or Part-Time on Duties in V.D. Centre.
Medical Officers— Dr. A. Sebba.	In charge of Male clinic.	Part-time.
Dr. D. I. Baird .. .. .	In charge of Female clinic..	Part-time.
Resident Medical Officers ..	Assist at male clinics .. ..	Part-time.
Nurses—Two .. .. .	To prepare for and assist at clinics .. .. . Do irrigations, &c., and keep registers .. .. .	One whole time. One at female clinic only.
Male Attendants—Two ..	To prepare for and assist at male clinics. Do irrigations, &c., and general porter's work in connection with clinics.	One nearly whole-time and evenings and week-ends and one at clinics only.
Dispenser—One .. .. .	General Dispensing duties	Four clinics per week.
Clerk .. .. .	Preparation of statistical returns and general clerical duties .. .. .	Part-time.

Patients from Blackburn attended the following centres for treatment during the year :—

	<i>Gonorrhæa.</i>	<i>Non-Venereal</i>	<i>Syphilis.</i>
Preston .. .. .	...	...	1
Salford .. .. .	...	1	...
Bolton .. .. .	1	...	...

*PART VII.*

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Maternity and Child  
Welfare.

## ANTE-NATAL WORK.

Since June, when Dr. Sheila Thomson commenced duty, three Ante-Natal Clinics have been held each week, instead of two as formerly.

This extra session has relieved overcrowding, reduced waiting to a minimum, and has enabled the staff to give more individual attention to the mothers than had been possible hitherto.

The numbers of attendances and of individuals attending were higher than in 1936, although the number of cases referred by midwives have again been disappointingly low.

The number (37) of abnormal cases seen at the Clinic was less than in 1936 (57 cases), and represents an abnormal rate of 5.6 per cent. of cases examined.

TABLE 73.

No. of Sessions held	...	...	...	...	...	...	125
No. of Attendances made	...	...	...	...	...	...	2672
No. of Individuals	...	...	...	...	...	...	693
No. of Normal Labours	...	...	...	...	...	...	448
No. of Abnormal Labours	...	...	...	...	...	...	37
No. Non-pregnant	...	...	...	...	...	...	65
No. Undelivered at End of 1936	...	...	...	...	...	...	148
Sent by Health Visitors	...	...	...	...	...	...	112
Sent by Matron, Springfield	...	...	...	...	...	...	123
Sent from various sources	...	...	...	...	...	...	153
Sent by Doctors	...	...	...	...	...	...	54
Sent by Midwives	...	...	...	...	...	...	56
Women who came on their own initiative	...	...	...	...	...	...	200
Primigravidæ Examined	...	...	...	...	...	...	231
Multigravidæ Examined	...	...	...	...	...	...	402
Multigravidæ undelivered at end of year	...	...	...	...	...	...	94
Primipara undelivered at end of year	...	...	...	...	...	...	54

The 37 abnormal cases were as follows :—

Instrumental	...	...	...	4	Ooeipito Posterior	...	...	...	2
Still Births	...	...	...	7	Eelampsia	...	...	...	3
Caesarean Section (for Placenta					Miscarriage	...	...	...	4
Praevia)	...	...	...	1	Twins	...	...	...	3
Premature Births	...	...	...	2	Contracted Pelvis	...	...	...	1
Breech	...	...	...	4	Foetal Deformities	...	...	...	3
Albuminuria...	...	...	...	3					

## POST-NATAL WORK.

A Post-Natal Clinic was begun on the 29th June, and is conducted once weekly. Particulars of this Clinic are given in the appended Table :—

No. of Sessions held	...	...	...	...	...	...	22
No. of Attendances made	...	...	...	...	...	...	90
No. of Individuals	...	...	...	...	...	...	70
Sent by Health Visitors	...	...	...	...	...	...	12
Sent by Matron, Springfield	...	...	...	...	...	...	27
Sent by Doctors	...	...	...	...	...	...	6
Sent by Midwives	...	...	...	...	...	...	3
Women who came on their own initiative	...	...	...	...	...	...	5
Sent by others	...	...	...	...	...	...	17
No. of Abnormal Cases	...	...	...	...	...	...	27
No. of Cases in which no abnormality was found	...	...	...	...	...	...	43

The 27 abnormal cases were as follows :—

Retroversion of the uterus	...	...	...	...	...	...	5
Prolapse of the uterus	...	...	...	...	...	...	8
Leucorrhoea	...	...	...	...	...	...	8
Abscess of Bartholins gland	...	...	...	...	...	...	1
Dysmenorrhoea	...	...	...	...	...	...	1
Pruritus ani	...	...	...	...	...	...	1
Cystitis	...	...	...	...	...	...	1
Myocarditis	...	...	...	...	...	...	1
Chronic Nephritis	...	...	...	...	...	...	1

Nine cases were referred to their private doctors.

The majority of the patients attend for a routine post-natal examination, not because of any abnormal sign or symptom ; therefore, most patients attend the Clinic once only, as can be seen from the figures above.

The fact that the average attendances at the Clinic is low is due to two factors, the first, and less important, being that provision of this facility is not, as yet, widely known. Time will remedy this defect and lead to increased attendances of those willing to take advantage of measures designed for their benefit. On the other hand there are many newly-delivered mothers who, though having secured appropriate ante-natal attention, yet ignore the importance of post-natal care. To some extent this apathetic attitude is understandable, and for that reason tactful following-up and advice is necessary if the post-natal clinic is to take its rightful place in your maternity service.



## SUPERVISION OF MIDWIVES.

This work is undertaken by Dr. Thomson, assisted by the Senior Health Visitor, both of whom pay regular visits to the homes of the Midwives.

Forty-seven midwives notified their intention to practice during 1936. Eighteen of these are attached to the District Nurses' Home. All are trained Midwives and hold the Certificate of the Central Midwives' Board. During the year four Midwives left the Borough, leaving 43 on the register on December 31st, 1936. (29 Midwives, 14 District Nurses).

One hundred and fifty-eight visits were paid to the Midwives' homes, of which six were special visits. Thirty-nine were ineffective.

Bags, case registers and Ante-Natal records are inspected at each visit.

The Ante-Natal records, in some cases, are well kept, and show greater interest in the Ante-Natal care of the patients, although much needs to be done to bring this important part of midwifery to the necessary standard of efficiency.

Two Midwives attended a Post Graduate Course at the Liverpool Maternity Hospital for a period of one month each, all expenses in connection with their attendance being borne by the Local Authority.

During the year a course of lectures was again given to local Midwives. These lectures, which are arranged by the Maternity and Child Welfare Committee, were well attended and provoked useful and stimulating discussion.

The best thanks of the Committee are due to the lecturers, all of whom acted in an honorary capacity.

A list of the lectures is appended :—

- Dr. V. T. THIERENS—" Bacteria in the causation and prevention of disease."  
 Mr. A. A. GEMMELL (Hon. Surgeon Women's Hospital and Maternity Hospital, Liverpool)—" Post-Natal Care."  
 Dr. R. J. MINNITT (Hon. Anæsthetist, Liverpool Royal Infirmary, etc.)—" The Use of Analgesia in Labour." (Illustrated with cinematograph).  
 Dr. R. W. ADDIS (Hon. Gynæcologist, Salford Royal Hospital, etc.)—" Some Midwifery Emergencies."  
 Dr. R. J. CLARKE (Blackburn)—" A Study of the Female Pelvis."  
 Mr. H. C. LEES (Hon. Surgeon, Blackburn and East Lancashire Royal Infirmary)—" Pregnancy, Labour, and Care during the puerperium."

## MEDICAL AID FORMS RECEIVED DURING 1936.

*Pregnancy—*

Varicose Veins	...	...	...	...	...	...	2		
Albuminuria...	...	...	...	...	...	...	24		
Puffiness of hands and feet	...	...	...	...	...	...	2		
Ante-Partum hæmorrhage	...	...	...	...	...	...	8		
Hyperemesis...	...	...	...	...	...	...	2		
Threatened Miscarriage	...	...	...	...	...	...	1		
High Temperature	...	...	...	...	...	...	1		
Miscarriage	...	...	...	...	...	...	2		
Hydramnios	...	...	...	...	...	...	3		
Others	...	...	...	...	...	...	4	—	49

*Labour—*

Contracted Pelvis	...	...	...	...	...	...	2		
Breech	...	...	...	...	...	...	10		
Complicated Breech	...	...	...	...	...	...	4		
Transverse	...	...	...	...	...	...	5		
Occipito Posterior	...	...	...	...	...	...	2		
Delayed Labour	...	...	...	...	...	...	44		
Obstructed Labour	...	...	...	...	...	...	3		
No presenting part	...	...	...	...	...	...	7		
Early rupture of membranes	...	...	...	...	...	...	3		
Adherent Placenta	...	...	...	...	...	...	3		
Prolapse of Cord	...	...	...	...	...	...	1		
Uterine Inertia	...	...	...	...	...	...	2		
Retained Membranes	...	...	...	...	...	...	2		
Torn Perineum	...	...	...	...	...	...	168		
Post partum hæmorrhage...	...	...	...	...	...	...	9		
Complete inversion of uterus	...	...	...	...	...	...	1		
Others	...	...	...	...	...	...	12	—	278

*Puerperium—*

Epileptic fit	...	...	...	...	...	...	1		
Phlebitis	...	...	...	...	...	...	2		
Mastitis	...	...	...	...	...	...	7		
Pyrexia	...	...	...	...	...	...	18		
Sub-involution	...	...	...	...	...	...	2		
Varicose Veins	...	...	...	...	...	...	1		
Cardiac symptoms	...	...	...	...	...	...	2		
Others	...	...	...	...	...	...	13	—	46

*Baby—*

White Asphyxia	...	...	...	...	...	...	1		
Hard-lip	...	...	...	...	...	...	2		
Eye Discharge	...	...	...	...	...	...	7		
Convulsions	...	...	...	...	...	...	1		
Talipes	...	...	...	...	...	...	1		
Feebleness of infant	...	...	...	...	...	...	18		
Phimosi	...	...	...	...	...	...	2		
Spina-bifida	...	...	...	...	...	...	4		
Prematurity	...	...	...	...	...	...	13		
Others	...	...	...	...	...	...	2	—	51

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TOTAL    ...    ...    ...    ...    ...    ...    424

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Other Forms received according to the requirements of the Central Midwives' Board :—

Artificial feeding ... ..	12		
Still-births ... ..	14		
Laying-out a dead body ... ..	1		
Notification of deaths of infants ... ..	5	—	32

### MIDWIVES ACT, 1936.

Approximately 950 domiciliary confinements (attended by District Nurses and Independent Midwives) take place each year in the Borough, 850 of which are actually conducted by midwives, the remainder being attended by midwives acting as maternity nurses.

An average of 520 midwifery cases are admitted each year to maternity beds provided by the Local Authority, or at the Royal Infirmary.

Assuming that a midwife is capable of attending 70 cases as a midwife and 30 cases as a maternity nurse during the year, ten midwives are required for domiciliary service.

The Council decided that only four midwives should be engaged in the first instance. This number was suggested for the following reasons :—

(1) The number of maternity cases admitted each year to local hospitals is not stabilised, and the yearly average (520) of hospital cases, taken over three years, is not to be regarded as a peak figure.

(2) After the Municipal Midwifery Service is established many women will still continue to employ independent midwives.

(3) Not all local independent midwives will be absorbed into the salaried service and, whilst certain of them will cease to practise as provided for in the Act, many will continue in independent practice, and thus reduce the number of cases to be attended by the salaried service.

The Council decided that arrangements be made with the District Nursing Association for the employment by the Association for a period of twelve months of a sufficient number of midwives for domiciliary midwifery, and that four midwives be so employed as an initial measure.

The midwives will be remunerated at the same rate as the Health Visitors.

## SPRINGFIELD MUNICIPAL MATERNITY HOME.

Number of Maternity Beds in the Institution (exclusive of Isolation and Labour Beds) ... ..	17
Number of Maternity Cases admitted during the Year ... ..	301
Average Duration of Stay .. ...	14 Days
Number of Cases Delivered by :—	
(a) Midwives ... ..	222
(b) Doctors ... ..	37
Number of Cases in which Medical Assistance was sought by a Midwife in Emergency ... ..	35
Number of Cases Notified as :—	
(a) Puerperal Fever ... ..	1
(b) Puerperal Pyrexia ... ..	9
Number of Cases of Pemphigus Neonatorum ... ..	<i>Nil</i>
Number of Infants not entirely Breastfed while in the Institution ..	27
Number of Cases Notified as Ophthalmia Neonatorum ... ..	3
Result of Treatment in each case—	
Vision unimpaired ... 1; Vision impaired ... 2.	
Number of Maternal Deaths ... ..	1
Cause of death—	
Haemorrhage from Central Placenta Praevia.	
Number of Infant Deaths :—	
(i) Stillborn ... ..	11
(ii) Within Ten Days of Birth ... ..	8
Cause of death in each case, and results of post-mortem examination (if obtainable)—	
<i>Stillborn—</i>	
Excessive moulding of head—Instrumental delivery ... ..	1
Doctor's delivery, cord tightly round neck... ..	1
Hydrocephalus... ..	1
Macerated foetus (premature) ... ..	2
Hydramnios (foul smelling) ... ..	1
Accidental A.P.H. ... ..	2
Eclampsia ... ..	1
Premature, Toxaemia of mother at 28 weeks ... ..	1
Prolapsed Cord... ..	1
<i>Within Ten Days of Birth—</i>	
Spina bifida and hydrocephalus ... ..	3
Anencephalus ... ..	1
Premature Twins (6½ months) ... ..	2
Atelectasis ... ..	1
Premature ... ..	1

## QUEEN'S PARK HOSPITAL.

Number of Maternity Beds in the Institution (exclusive of Isolation and Labour Beds) ... ..	30
Number of Maternity Cases admitted during the year ... ..	327
Average Duration of Stay ... ..	21·52 dys.
Number of Cases Delivered by—	
(a) Midwives ... ..	232
(b) Doctors ... ..	15
Number of Cases in which Medical Assistance was sought by a Midwife in Emergency ... ..	66
Number of Cases notified as—	
(a) Puerperal Fever ... ..	0
(b) Puerperal Pyrexia ... ..	7
Number of Cases of Pemphigus neonatorum ... ..	0
Number of Infants not entirely Breastfed while in the Institution ...	13
Number of Cases notified as Ophthalmia Neonatorum ... ..	0
Number of Maternal Deaths ... ..	2

Cause of Death in each case—

Acute lobar pneumonia, 1 ; Pulmonary Embolism, Phlebitis femoral vein, 1.

Number of Infant Deaths—

(i) Stillborn ... ..	21
(ii) Within 10 days of birth... ..	8

*Stillbirths—*

- 1.—Premature. Mother Febrile condition before delivery.
- 2.—Mother slight albuminuria.
- 3.—Anencephalie foetus.
- 4.—Mother admitted advanced in labour. Primipara—extended breech.
- 5.—Premature—Mother albuminuria.
- 6.—Premature, weight 2-lbs. 3-ozs. Mother albuminuria.
- 7.—Placenta praevia.
- 8.—Mother eclampsia.
- 9.—Mother had rickets.
- 10.—Placenta praevia.
- 11.—Premature, 3½-lbs. Mother severe albuminuria.
- 12.—Anencephalie foetus.
- 13.—Premature, 3-lbs. 2-ozs. Mother albuminuria and severe ante-partum haemorrhage.
- 14.—Premature.
- 15.—Mother admitted in labour. No F.H.S. on admission.
- 16.—Mother contracted pelvis. Impacted breech.
- 17.—Premature, 2-lbs. 1-oz. Mother had repeated miscarriages.
- 18.—Mother severe albuminuria and ante-partum haemorrhage.
- 19.—Breech easy delivery. No obvious causes.
- 20.—Premature, 5-lbs. Mother albuminuria and history of stillbirths.
- 21.—Protracted delivery, due to old cervical scars. Forceps delivery.



*Deaths within ten days of birth—*

- 1.—Premature, 2-lbs. Twin.
- 2.—Premature, 2-lbs. 14-ozs.
- 3.—Convulsions.
- 4.—Inanition.
- 5.—Inanition. Face presentation. Mother primipara, aged 46.
- 6.—Placenta praevia. Premature, 1-lb. 11-ozs.
- 7.—Placenta praevia. 3½-lbs.
- 8.—Ante-partum haemorrhage. 4-lbs. 14-ozs.

## PUERPERAL FEVER &amp; PUERPERAL PYREXIA.

*(a) Puerperal Fever ;—*

Three notifications were received during the year, all Borough cases. Of these two terminated fatally.

No. of cases notified	...	...	...	...	...	...	...	3
Borough cases	...	...	...	...	...	...	...	3
Out of Borough cases	...	...	...	...	...	...	...	0
No. of cases attended by midwife alone	...	...	...	...	...	...	...	1
No. of cases attended by a doctor and midwife	...	...	...	...	...	...	...	1
No. of cases attended in an Institution	...	...	...	...	...	...	...	1
No. of cases treated in Hospital	...	...	...	...	...	...	...	3
No. of cases which recovered...	...	...	...	...	...	...	...	1
No. of cases which died	...	...	...	...	...	...	...	2

*(b) Puerperal Pyrexia ;—*

Seventeen cases were notified throughout the year, three of which were in respect of out-of-Borough cases.

No. of cases notified	...	...	...	...	...	...	...	17
Borough cases	...	...	...	...	...	...	...	14
Out of Borough cases	...	...	...	...	...	...	...	3
No. of cases attended by Doctor alone	...	...	...	...	...	...	...	0
No. of cases attended by Midwife alone	...	...	...	...	...	...	...	3
No. of cases attended by Doctor and Midwife	...	...	...	...	...	...	...	5
No. of cases attended in Institution...	...	...	...	...	...	...	...	6
No. of cases treated at Home	...	...	...	...	...	...	...	5
No. of cases treated in Hospital	...	...	...	...	...	...	...	9
No. of cases attended by District Nurse	...	...	...	...	...	...	...	2
No. of cases which recovered...	...	...	...	...	...	...	...	12
No. of cases which died	...	...	...	...	...	...	...	2

The arrangements for dealing with cases of puerperal infection have been fully described in previous reports.



## MATERNAL MORTALITY.

During the year a total of 13 deaths occurred in association with pregnancy, of which nine were in respect of Blackburn residents, the latter figure being equivalent to a maternal mortality rate of 6·31 per 1,000 births registered.

Appended are the causes to which death was ascribed :—

*Case I.*—(a) Acute cardiac failure and dilatation ; (b) Hyperpiesis ; (c) Accidental hæmorrhage ; (d) Post-partum debility.

*Case II, III.*—Puerperal Septicæmia.

*Case V.*—Pulmonary embolism following Cæsarean Section for Placenta Prævia.

*Case VI.*—(a) Pulmonary Embolism ; (b) Thrombo-phlebitis of the leg.

*Case VII.*—Pneumonia (probably secondary to uterine sepsis).

*Case VIII.*—Eclampsia of pregnancy.

*Case IX.*—(a) Collapse ; (b) Ante-partum hæmorrhage ; (c) Placenta prævia.

*Case X.*—This case was the subject of a coroner's inquest, the verdict returned being " Acute general peritonitis, but there is not sufficient evidence to show how the peritonitis was set up."

Appended is an analysis of the maternal deaths classified as regards preventability.

*Group " A."*—*Probably Preventable ;*—

(1) *Cause of death ;* " (a) Acute cardiac failure and dilatation ; (b) Hyperpiesis ; (c) Accidental hæmorrhage ; (d) Post-partum debility."

This woman had booked neither doctor nor midwife, worked throughout her pregnancy, and called in a doctor only at the 36th week of pregnancy, when she had an accidental ante-partum hæmorrhage. She was immediately transferred to hospital and delivered of a still-born child. Her general condition appeared to improve, although there was some evidence of a nephritis.

She left hospital on the 11th day and died suddenly one month after confinement.

This death might have been prevented had the patient—

- (1) Received adequate ante-natal care ; and
- (2) Remained in hospital for a longer period post-natally.

(2) *Cause of death ; “ Eclampsia of Pregnancy.”*

Had booked a doctor, who examined her urine monthly.

At the 7th month she visited Springfield and gave history of oedema of feet for three weeks. Her urine was loaded with albumen, blood pressure 200, and suffered from headaches.

She was referred immediately to her own doctor, who prescribed treatment, and, following a fit, was transferred to hospital the same day, where, despite energetic treatment, she died the following day.

This death would probably have been prevented had the woman sought medical advice when she first noticed oedema of the feet and/or had the urine been tested more frequently than once monthly.

(3) *Cause of death ; “ Puerperal Septicæmia.”*

Ante-natal care from fifth month onwards. Medical aid summoned at term for delayed labour, unsuccessful attempt at forceps delivery, transferred to hospital and delivered by Caesarean section 33 hours later. Death from puerperal sepsis four days later.

Death might have been prevented by better obstetric facilities at delivery.

(4) *Cause of death ; “ Acute general peritonitis, but there is not sufficient evidence to show how the peritonitis was set up.” (Open Verdict at Coroner’s Court).*

This death was the probable result of illegal and instrumental interference.

The case was admitted to hospital, having had a 3—4th month incomplete abortion four days previously. Medical aid was not summoned until day of admission to hospital. On admission T. 100·8, and evidence of peritonitis. Uterus evacuated of foul debris the following day. Death occurred eighteen days later.

*Group “ B ”—Possibly Preventable ;—*(1) *Cause of death ; “ (a) Collapse ; (b) Ante-partum hæmorrhage ; (c) Placenta prævia.”*

No ante-natal care until the 34th week of pregnancy, when her practitioner advised rest in bed, as her general condition was poor.

History of threatened miscarriage at 3rd month. Two days after first consulting doctor a severe hæmorrhage occurred. Four days later placenta prævia and transverse presentation were diagnosed and, on the evening of this day, a second hæmorrhage occurred, necessitating transfer to hospital. A second opinion was obtained and Caesarean Section considered inadvisable, in view of the patient’s general condition. She was accordingly plugged and underwent blood transfusion. Death occurred the following day.

It is possible that death might have been prevented had—

- (1) Medical advice been secured following threatened miscarriage at the third month, and/or
- (2) Had Caesarean Section been carried out immediately after the diagnosis of the transverse presentation and placenta prævia.

(2) *Cause of death ; “ Puerperal septicæmia.”*

This patient received ante-natal care from a midwife and was referred to a private practitioner for albuminuria in the 26th week of pregnancy.

At term forceps delivery of a high vertex was unsuccessfully attempted in patient's home and the woman was then transferred to Hospital and delivered by Caesarean Section. Puerperal sepsis supervened with death eight days after delivery.

This death might have been prevented by better obstetric facilities at delivery.

*Group “ C ”—Apparently unpreventable ;—*

(1) *Certified cause of death ; “ (a) Pulmonary embolism ; (b) Thrombophlebitis of right leg.”*

Ante-natal history normal, apart from slight varicose vein of right leg. Normal delivery followed twenty-four hours later by thrombo-phlebitis of right leg. Eleven days later evidence of slight pulmonary embolism. Eighteen days after confinement a further embolism caused death.

(2) *Certified cause of death ; “ (1) Pneumonia ; (2) Parturition.”*

This patient received ante-natal care. A forceps delivery was followed by post-partum hæmorrhage and manual removal of the placenta. On the second day of the puerperium the temperature rose and pneumonia developed on the following day. The patient died 14 days after delivery.

Pneumonia was probably secondary to a uterine infection.

(4) *Certified cause of death ; “ Pulmonary Embolism following Caesarean Section for Placenta Prævia.”*

This patient made a good recovery from the Caesarean Section, but suddenly collapsed and died on the 19th day of the puerperium.

TABLE 74.

## MATERNAL MORTALITY

RATES PER 1,000 BIRTHS AND STILLBIRTHS REGISTERED.

YEAR	SEPSIS	OTHER CAUSES	TOTAL	YEAR	SEPSIS	OTHER CAUSES	TOTAL
1891	1.71	2.70	4.41	1914	2.14	4.28	6.42
1892	2.31	4.64	6.95	1915	1.22	2.03	3.25
1893	0.51	4.38	4.89	1916	1.93	1.93	3.86
1894	0.55	5.24	5.79	1917	0.61	5.53	6.14
1895	1.79	5.89	7.68	1918	1.29	5.80	7.09
1896	1.40	7.03	8.43	1919	2.72	3.28	6.00
1897	1.92	2.75	4.67	1920	1.06	4.59	5.65
1898	0.54	3.00	3.54	1921	2.37	1.97	4.34
1899	2.19	3.29	5.48	1922	0.45	6.43	6.88
1900	2.90	1.16	4.06	1923	2.39	4.29	6.68
1901	2.65	3.54	6.19	1924	1.51	3.53	5.04
1902	3.27	4.73	8.00	1925	2.10	3.68	5.78
1903	1.50	6.05	7.55	1926	4.01	4.01	8.02
1904	0.96	4.19	5.15	1927	1.76	5.87	7.63
1905	3.13	6.57	9.60	1928	0.58	3.46	4.04
1906	1.46	3.80	5.26	1929	1.93	7.72	9.65
1907	3.58	5.07	8.65	1930	0.00	4.38	4.38
1908	0.58	4.09	4.67	1931	0.64	3.24	3.88
1909	2.23	4.14	6.37	1932	0.64	5.18	5.83
1910	2.71	4.41	7.12	1933	0.00	4.11	4.11
1911	1.75	5.60	7.35	1934	1.98	4.63	5.95
1912	1.09	3.28	4.37	1935	1.34	3.37	4.71
1913	1.02	4.46	5.48	1936	1.40	4.91	6.31
Average	1891—	1900	..	..	1.58	4.00	5.59
	1901—	1910	..	..	2.20	4.65	6.85
	1911—	1920	..	..	1.48	4.07	5.56
	1921—	1930	..	..	1.71	4.53	6.24



## APPOINTMENT OF OBSTETRIC CONSULTANT.

In the Report for 1935 mention was made of the negotiations then proceeding with reference to the joint appointment of a Consultant Obstetrician for duty in Blackburn and the surrounding area.

At several meetings attended by representatives of Blackburn, Darwen, the Lancashire County Council and the Blackburn and East Lancashire Royal Infirmary, close consideration has been given to the matter, and the bodies concerned are now proceeding with the appointment.

The terms of appointment provide for a minimum salary (payable jointly by Blackburn, the County Council and the Borough of Darwen), of £1,000 per annum. The gentleman to be appointed will be attached to the staffs both of the three participating Authorities and of the Royal Infirmary. He will conduct specialist clinics and be generally available for duty in the areas of the three Local Authorities. Subject to certain limits, private consultant work will also be allowed.

This appointment should prove of great help not only to the general public and private practitioners, but also to the Local Authorities concerned, and to the voluntary organisations interested in maternity work.

In Blackburn there is a sufficiency of beds, provided by the Borough and the Royal Infirmary, for the maternity needs of the areas to be served by the consultant. In addition, the number of women practising domiciliary midwifery in these areas is numerically adequate, and this service should attain a greater efficiency when the provisions of the Midwives Act, 1936, become effective.

The local maternity services are both comprehensive and efficient, yet the question must be asked whether the beds available are being used to the best advantage by Blackburn residents and by women in the contiguous areas for which Blackburn is the hospital centre.

The Obstetric Consultant will be in a position to gauge the obstetric requirements of a population of approximately 213,000. This opportunity, together with his right to admit cases to maternity beds provided at local institutions, should lead to a more economical and useful allocation of hospital beds than is at present the case.

Investigation of maternity cases transferred to hospital as emergencies shows the need of an expert maternity unit for domiciliary purposes. Many transfers are in a collapsed condition at the time of removal, and should receive expert attention at the place of confinement rather than be subjected to the risk of transport to hospital. In the past this service has been lacking, but the deficiency will be made good when your Obstetric Consultant assumes office. The officials of the three Authorities participating in the joint appointment have already considered a scheme for the provision of such an emergency obstetric unit better known, perhaps, as a "flying squad." Briefly, it is proposed that this "squad" be based on one of the local maternity units, and consist of the Consultant, together with a skilled midwife. The requisite instruments, dressings, etc., will be packed and ready at the base for transport to the case, together with the personnel, immediately following receipt of call.

## NOTIFICATION OF BIRTHS.

The following Table illustrates the source of notifications during the year :—

				<i>Live Births</i>		<i>Still Births</i>		<i>Total</i>
Doctors ...	...	...	...	16	...	1	...	17
Midwives	...	...	...	1203	...	49	...	1252
Parents and others			...	317	...	21	...	338
				<hr/>		<hr/>		<hr/>
TOTALS	...	...		1536	...	71	...	1607

## STILL BIRTHS.

The number of still births registered during the year was 75. The number of still-births allocated to the Borough during the year was 63. The Borough cases were investigated with a view to ascertainment of cause. The appended Table gives particulars with reference to possible and probable causes :—

<i>Cause.</i>						<i>No. of Still-births.</i>
(1) Complications of labour ...	...	...	...	...	...	19
(2) Ante-natal causes ...	...	...	...	...	...	19
(3) Foetal states ...	...	...	...	...	...	8
(4) Prematurity ...	...	...	...	...	...	7
(5) Unknown ...	...	...	...	...	...	10
						—
			TOTAL	...	...	63



## NEO-NATAL DEATHS.

During the year 67 infants died within two months of birth. Fourteen of the deaths were ascribed to foetal states, 20 to prematurity, and the remaining 33 to post-natal causes.

The number of neo-natal deaths (*i.e.*, within the first four weeks of life) was 53, a figure equivalent to 3·9% of live births registered.

## PREMATURE BIRTHS.

All premature births are followed up, and of 55 premature infants born during 1936, 31 were alive at the end of the year.

*Causes of prematurity :*

Albuminuria...	...	...	...	...	...	...	6
Multiple pregnancy	...	...	...	...	...	...	3
Shock	...	...	...	...	...	...	1
Not known	...	...	...	...	...	...	25
Ante-partum haemorrhage	...	...	...	...	...	...	4
Other Maternal conditions	...	...	...	...	...	...	16
							—
TOTAL	...	...	...	...	...	...	55
							—

## INFANTILE MORTALITY.

During the year there were 88 deaths of infants, compared with 90 in 1935. This figure corresponds to an infantile mortality rate of 64·0 per 1,000 live births registered, compared with 63·4 in 1935, and 56·9 in 1934.

Of the deaths registered, 80 were of legitimate, and eight of illegitimate children. The rate of infantile mortality amongst legitimate infants was 61·6 per 1,000 legitimate births registered, and amongst illegitimate children 129·0 per 1,000 illegitimate births registered.

Of the deaths certified 53, or 57·9%, occurred within the first month of life.

The more important causes of death were as follows :—

<i>Cause.</i>							<i>Number of Deaths.</i>
Premature Birth ...	...	...	...	...	...	...	21
Congenital defect...	...	...	..	...	...	...	29
Pneumonia	...	...	...	...	...	...	16

St. Mary's Ward shows the highest rate of infantile mortality (157), followed by St. Paul's (95), and St. Michael's (92). Trinity exhibited the lowest rate (22).

Taking the Infantile Mortality over a period of ten years, St. Silas's shows by far the best figures, St. Mark's comes next, followed by Park. The worst wards during the same period were St. Mary's and St. Peter's.

TABLE 75

INFANTILE MORTALITY IN WARDS AND COMPARISON WITH  
DENSITY OF POPULATION.

WARD	Estimated Population mid- dle of 1936	Persons per Acre	Rooms per person	Births	Birth Rate	Infantile Mortality	Deaths	Death Rate	Natural Increase or Decrease of Popul'n 1934-35	Census Popula- tion 1931
St. Stephen's ..	12493	11.2	1.19	171	13.6	52	165	13.2	+ 6	13215
Trinity' .. ..	7587	53.4	1.09	91	12.0	22	100	13.1	— 9	8022
St. Michael's ..	8120	13.7	1.24	87	10.7	92	135	16.6	—48	8580
St. John's .. .	6160	64.5	1.22	81	13.1	74	91	14.7	—10	6520
St. Silas's .. .	8607	9.2	1.55	51	5.9	39	110	12.7	—59	9108
St. Paul's .. .	8445	72.5	1.20	115	13.6	95	132	15.6	—17	8929
St. Peter's .. .	5370	46.7	1.01	80	13.6	75	103	17.5	—23	6213
St. Mary's .. .	4872	29.5	0.94	70	14.3	157	78	16.0	— 8	5147
St. Matthew's ..	8085	81.0	1.11	81	10.0	37	104	12.8	—23	8561
St. Thomas' .. .	10637	6.4	1.06	112	10.5	53	150	14.1	—38	11255
Park .. .. .	8561	13.9	1.09	108	12.6	74	122	14.2	—14	9052
St. Luke's .. .	6936	43.6	1.08	96	13.8	52	84	12.1	+12	7333
St. Mark's .. .	9430	24.7	1.25	101	10.7	39	145	15.3	—44	9979
St. Andrew's ..	10197	9.4	1.09	117	11.4	59	145	14.2	—28	10783
	116000	16.0	1.17	1361	11.7	64	1664	14.3	—303	122697

COMPARISON OF BLACKBURN INFANTILE MORTALITY RATE WITH THAT OF  
ENGLAND AND WALES FROM 1927—1936.

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Blackburn.....	77	80	80	83	61	66	71	57	63	64
England and Wales..	69	65	74	60	66	65	64	59	57	59

TABLE 76.

INFANTILE MORTALITY IN WARDS FROM 1927 TO 1936.

WARD.	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	Average for 10 y'rs
St. Stephen's ... ..	45	47	62	36	62	98	67	57	51	52	57
Trinity ... ..	153	118	96	80	76	84	56	26	19	22	73
St. Michael's ... ..	46	65	108	95	34	54	38	62	39	92	63
St. John's ... ..	52	108	99	109	81	43	22	93	55	74	73
St. Silas's ... ..	41	53	63	59	40	38	41	16	104	39	49
St. Paul's ... ..	59	73	110	56	74	69	45	43	37	95	66
St. Peter's ... ..	119	127	116	103	100	122	134	45	129	75	107
St. Mary's... ..	97	77	126	205	65	108	90	103	136	157	116
St. Matthew's ... ..	41	105	39	68	72	63	63	141	58	37	68
St. Thomas's ... ..	76	77	103	128	60	18	104	48	69	53	73
Park ... ..	80	81	58	50	38	45	97	44	58	74	62
St. Luke's... ..	147	111	44	60	56	37	82	78	60	52	72
St. Mark's... ..	61	51	71	96	31	104	83	20	29	39	58
St. Andrew's ... ..	68	60	56	71	61	21	62	47	96	59	60
Borough ... ..	77	80	80	83	61	66	71	56	63	64	70

TABLE 77.—DEATHS UNDER ONE YEAR, ARRANGED ACCORDING TO DAYS, WEEKS AND MONTHS.

CAUSES OF DEATH.		1st day.	2nd day.	3rd day.	4th day.	5th day.	6th day.	7th day.	1st week.	2nd week.	3rd week.	4th week.	Under 1 month.	1 month to 2.	2 months to 3.	3 months to 4.	4 months to 5.	5 months to 6.	6 months to 7.	7 months to 8.	8 months to 9.	9 months to 10.	10 months to 11	11 months to 12	TOTAL.
All Causes	Certified	25	6	6	2	1	2	—	42	8	3	—	53	14	3	5	1	1	1	2	2	1	2	2	88
	Uncertified...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Smallpox		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Chickenpox		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Measles		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Scarlet Fever		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Whooping-cough		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Diphtheria and Croup		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Erysipelas		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Tuberculous Meningitis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Abdominal Tuberculosis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Other Tuberculous Diseases		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Meningitis (not Tuberculous)		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Convulsions		1	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
{ Laryngitis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Bronchitis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Pneumonia (all forms)		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Diarrhoea		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Enteritis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Gastritis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Syphilis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Rickets		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Suffocation, overlying		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
{ Injury at birth		1	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
{ Atelectasis		5	—	1	—	—	1	—	7	—	—	—	7	—	—	—	—	—	—	—	—	—	—	—	—
{ Congenital Malformations		2	2	1	1	—	—	—	6	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—
{ Premature Birth		12	1	2	—	1	—	—	16	1	1	—	18	2	1	—	—	—	—	—	—	—	—	—	—
{ Atrophy, Debility and Marasmus		4	3	2	1	—	1	—	11	4	—	—	15	6	—	1	—	—	—	—	—	—	—	—	—
{ Other causes		—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—
TOTAL		25	6	6	2	1	2	—	42	8	3	—	53	14	3	5	1	1	1	2	2	1	2	2	88

Nett Births registered during the calendar year ... legitimate ... illegitimate ... 1299 62

Nett Deaths registered during the calendar year of ... legitimate infants ... illegitimate infants ... 80 8

TABLE 78.

## DEATH RATES UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	RATES PER 1,000 BIRTHS.												
	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Small-pox ... ..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chicken-pox ... ..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles ... ..	0.5	4.2	0.5	3.5	0.0	0.0	3.7	0.6	0.0	4.1	0.0	0.7	0.0
Scarlet Fever ... ..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Whooping-cough ... ..	2.0	2.1	3.4	0.0	1.1	1.2	1.2	5.2	3.8	1.3	0.6	2.1	2.2
Diphtheria and Croup ... ..	0.0	0.0	0.5	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0
Erysipelas ... ..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0
Tuberculous Meningitis ...	0.5	0.0	0.5	0.0	0.0	0.6	0.0	0.6	0.6	0.0	1.3	1.4	0.0
Abdominal Tuberculosis ...	0.5	0.5	0.5	0.0	0.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Other Tuberculous Diseases...	0.0	0.0	0.5	0.0	0.0	0.6	0.0	0.6	0.0	0.6	0.0	0.0	0.0
Meningitis ( <i>not Tuberculous</i> )...	1.0	2.1	2.2	0.5	1.7	1.9	0.0	1.3	0.0	0.6	0.6	0.0	0.7
Convulsions ... ..	5.0	5.2	2.2	2.9	2.8	4.5	5.0	1.9	0.6	2.7	0.6	0.7	0.7
Laryngitis ... ..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bronchitis ... ..	7.0	12.0	8.6	6.4	10.3	8.3	3.7	3.2	4.5	2.7	2.0	4.2	2.9
Pneumonia ( <i>all forms</i> ) ...	12.6	13.1	13.2	11.7	9.8	15.4	12.5	13.6	7.1	10.9	2.7	11.2	11.7
Diarrhoea ... ..	5.5	4.7	4.0	7.0	1.7	2.5	3.7	5.2	1.2	1.3	4.8	0.7	2.2
Enteritis ... ..	0.0	0.5	1.1	0.0	0.5	0.0	0.6	0.0	0.6	4.1	0.0	2.1	0.0
Gastritis ... ..	3.0	1.0	1.7	1.7	0.0	0.0	0.0	0.6	0.0	0.6	0.6	0.0	0.0
Syphilis ... ..	2.0	2.6	0.0	0.0	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Rickets ... ..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Suffocation, overlying ...	0.0	0.0	0.0	0.5	0.5	0.6	1.8	0.0	0.6	0.0	2.0	0.7	0.0
Injury at Birth ... ..	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Atelectasis ... ..	0.5	0.5	0.0	2.3	0.0	0.6	1.2	1.3	0.6	1.3	2.0	2.1	5.1
Congenital Malformations ...	3.5	5.7	5.7	3.5	0.5	2.5	10.6	5.2	9.7	11.6	12.5	18.3	4.4
Premature Birth ... ..	15.6	20.5	23.5	14.7	16.1	20.6	22.5	13.6	22.6	15.1	17.3	12.6	15.3
Atrophy, Debility and Marasmus ... ..	10.6	8.6	14.3	17.0	21.9	13.5	11.2	3.2	7.7	6.9	6.9	3.5	16.9
Other causes ... ..	14.1	13.6	6.3	4.7	8.6	6.4	4.3	4.5	5.1	5.4	2.0	1.4	1.4



## OPHTHALMIA NEONATORUM.

Five cases were notified during the year, four of which were Borough cases, and one out-of-the Borough.

TABLE 79.

## RESULTS OF TREATMENT.

Cases Treated.			Vision Unimpaired	Vision Impaired	Total Blindness	Deaths.
Notified	At Home.	In Hospital				
5	2	3	3	—	—	—

Two cases were still under treatment at the end of the year.

## MATERNITY AND CHILD WELFARE CENTRES.

There are six Maternity and Child Welfare Centres in the Borough, situated at Bent Street, Nova Seotia, Kendal Street, Griffin Parochial Hall, Cornelian Street and Hozier Street. Two sessions are held each week at Hozier Street and Kendal Street.

In the following Table it will be noted that the attendanees numbered 39,745, compared with 38,897 in 1935.

TABLE 80.

	Bent Street.	Hozier Street (2 sessions weekly).	Bolton Road	Kendal Street (2 sessions weekly).	Griffin.	Cornelian Street	Total, 1936.	Total, 1935.	Total, 1934.
Infants :—									
New cases under 1 year	120	224	139	215	148	78	924	..	..
No. of re-attendances..	2182	3686	2467	3741	2675	1408	16159	..	..
New cases over 1 year..	42	39	26	40	35	22	204	..	..
No. of re-attendances..	3340	5536	3359	4353	2838	2106	21532	..	..
Attendances of Infants	5684	9485	5991	8349	5696	3614	38819	..	..
Consultations with Dr.	597	1272	901	1319	802	370	5261	..	..
Expectant Mothers—									
No. of new cases ..	40	34	15	32	25	12	158	..	..
No. of re-attendances	202	211	96	129	84	46	768	..	..
Total Attendances of Expectant Mothers..	242	245	111	161	109	58	926	..	..
Total Attendances.. ..	5926	9730	6102	8510	5805	3672	39745	..	..
Average Attendance of infants per session 1936	121	97	120	86	112	77	*828	..	..
1935	..	..	..	..	..	..	..	810	..
1934	..	..	..	..	..	..	..	..	772

\* Total average attendance *each week* at all the Centres.

A doctor attends at each session, together with two Health Visitors, and assistance is given by three or four voluntary workers. To these ladies I wish to express my thanks for the enthusiastic manner in which they have performed their self-imposed duties.

Of the 1,361 live births notified during the year, 924, or 67·9%, attended the Infant Consultation Centres, a decrease of 1·5% over the figure for 1935.

The percentages seen by a Doctor at each session per Clinic are as under :—

Bent Street	..	..	..	..	..	10·0
Hozier Street	..	..	..	..	..	13·4
Nova Scotia	..	..	..	..	..	15·0
Kendal Street	..	..	..	..	..	15·7
Griffin	..	..	..	..	..	14·0
Cornelian Street	..	..	..	..	..	10·2

The talks by Health Visitors at the Clinics have been continued. The syllabus is as under :—

I.—Expectant Motherhood. II.—Care of the New-Born Infant. III.—The Diet of a Nursing Mother. IV.—Breast Feeding. V.—Artificial Feeding. VI.—Weaning. VII.—The Hygiene of Infancy. VIII.—Baby Clothes. IX.—The Development of the Child. X.—Feeding from 1-5 Years. XI.—Rickets. XII.—Common Ailments of Infancy.

The appended Table shows the deaths of babies who attended the Clinics during their first year, as compared with the deaths of those who never attended the Clinics.

TABLE 81.

Area	Deaths	Attend'd a Clinic		Attendance at Birth			Full Time Baby		Births during same period.	Deaths in Institutions				
		Yes	No	Doctor	Mid- wife	Doctor & Mid- wife	Yes	No		Queens Park	Royal Infir- mary	Spring field	Reg. Mat. Home	
District	I.	12	1	11	..	5	7	7	5	264	4	..	..	..
..	II	12	2	10	..	8	4	8	4	228	1	..	..	..
	III	12	1	11	..	9	3	9	3	208	4	2	1	..
..	IV	12	3	9	2	10	..	8	4	119	2	1	..	..
..	V	10	3	7	..	6	4	4	6	149	2	2	1	..
..	VI	18	2	16	1	6	11	13	5	212	5	1	4	..
..	VII.	8	..	8	..	5	3	5	3	150	2	1	..	..
..	VIII.	4	1	3	..	2	2	4	..	31	3	..	..	..
		88	13	75	3	51	34	58	30	1361	23	7	6	..

## DENTAL TREATMENT OF MATERNITY AND CHILD WELFARE CASES.

Mr. H. Yates, the Senior Dental Surgeon, carried out the following work in connection with Maternity and Child Welfare Cases :—

	1936	1935
Number of Sessions held .. .. .	75	76
Number of Patients : Mothers .. .. .	195	185
Children .. .. .	67	62
Permanent Teeth Extracted .. .. .	270	206
Permanent Teeth Filled .. .. .	37	56
Temporary Teeth Extracted .. .. .	55	67
Temporary Teeth Filled .. .. .	11	18
Other Operations .. .. .	26	41

## ORTHOPÆDIC TREATMENT.

The arrangements in force for the care of deformity or crippling defect are as outlined in the Health Report for the year 1932.

**TABLE 82.**  
**THE WORK OF THE HEALTH VISITORS.**  
**HOME VISITING.**

	<i>Dis't.</i> I.	<i>Dis't.</i> II.	<i>Dis't.</i> III.	<i>Dis't.</i> IV.	<i>Dis't.</i> V.	<i>Dis't.</i> VI.	<i>Dis't.</i> VII.	<i>Dis't.</i> VIII.	<i>Totals.</i>
Visits to Expectant Mothers—									
First Visits .. ..	47	25	9	24	23	71	61	10	270
Re-visits.. ..	116	4	8	43	7	48	42	5	273
Ineffective Visits ..	7	4	...	2	1	1	1	1	17
Infants under 1 year—									
First Visits .. ..	226	280	136	131	155	198	149	55	1330
Re-visits.. ..	712	625	511	554	606	767	524	233	4532
Ineffective Visits ..	86	140	135	152	49	28	75	77	742
Infants aged 1 year—									
Re-visits.. ..	657	463	507	626	426	618	538	206	4041
Special Visits.. ..	14	3	1	2	1	2	2	4	29
Ineffective Visits ..	79	83	121	28	36	8	55	70	480
Children 2—5 years ..	958	1161	1186	506	1111	1468	1185	560	8135
Ineffective .. ..	116	167	305	21	82	54	186	138	1069
Ophthalmia Neonatorum—									
First Visits .. ..	...	1	...	...	1	...	...	...	2
Re-visits.. ..	...	...	...	...	...	...	...	...	...
Diarrhoea—									
First Visits .. ..	1	...	...	1	...	...	...	...	2
Re-visits.. ..	1	...	...	...	1	...	...	...	2
Stillbirths .. ..	5	19	6	5	4	9	6	1	55
Doctors' Accounts ..	25	48	20	15	7	30	10	13	168
Milk (Mothers and Children Order)—									
Visits .. ..	...	...	...	...	...	...	...	...	...
Minor Infectious Diseases... ..	127	218	140	59	164	108	250	90	1156
Midwives—									
Routine .. ..	95	...	...	...	...	...	...	...	95
Special .. ..	7	...	...	...	...	...	...	...	7
Ineffective .. ..	46	...	...	...	...	...	...	...	46
Puerperal Fever Visits	4	4	1	1	...	2	4	...	16
Houses where deaths of infants occurred	6	10	8	2	...	8	4	1	39
Miscellaneous Visits..	81	21	14	12	31	56	29	1	245
<b>TOTALS .. 1936 ..</b>	<b>3416</b>	<b>3276</b>	<b>3108</b>	<b>2184</b>	<b>2705</b>	<b>3476</b>	<b>3121</b>	<b>1465</b>	<b>22751</b>
<b>1935 ..</b>	<b>3479</b>	<b>3538</b>	<b>3326</b>	<b>2416</b>	<b>2842</b>	<b>3725</b>	<b>3295</b>	<b>...</b>	<b>22621</b>

In August an additional Health Visitor was appointed whose time is equally apportioned between the Health and School Medical Services.

TABLE 83.

## CLINIC SESSIONS ATTENDED

	<i>Dis't.</i> I.	<i>Dis't.</i> II.	<i>Dis't.</i> III.	<i>Dis't.</i> IV.	<i>Dis't.</i> V.	<i>Dis't.</i> VI.	<i>Dis't.</i> VII.	<i>Dis't.</i> VIII.	<i>Totals.</i>
Maternity and Child Welfare Clinics ..	92	116	72	101	144	116	143	17	801
Ante-Natal Clinics ..	24	15	8	120	15	15	18	1	216
Special V.D. Clinics ..	...	...	...	75	4	...	...	...	79
Other Clinics .. ..	45	39	30	54	35	39	43	7	292
TOTALS ..	161	170	110	350	198	170	204	25	1388
Total Houses visited ..	2853	2884	2750	1773	2441	3285	2822	1303	20111
Total Persons visited ..	3275	3279	3117	2195	2669	3488	3094	1453	22570



## MATERNITY AND CHILD WELFARE ACT, 1918.

The following Table gives the number of families to whom assistance was rendered during 1936 :—

TABLE 84.

Price.	No. on Jan. 1st, 1936.	New Cases during Year.	Cases Discontinued.	No. on Dec. 31st, 1936
Free .. .. .	236	278	272	242
Quarter Price .	49	121	112	58
Half-Price .. .	18	68	67	19
<b>TOTAL .. ..</b>	<b>303</b>	<b>467</b>	<b>451</b>	<b>319</b>

For former years the corresponding figures (totals) are :—

1927 .. .. .	*195	367	323	†239
1928 .. .. .	*239	363	482	†120
1929 .. .. .	*120	264	271	†113
1930 .. .. .	*113	322	265	†170
1931 .. .. .	*170	401	282	†289
1932 .. .. .	*289	521	439	†371
1933 .. .. .	*371	524	568	†327
1934 .. .. .	*327	435	443	†319
1935 .. .. .	*319	442	458	†303

\* Beginning of Year.      † End of Year.

During the year 28,525 pounds of dried milk have been supplied to expectant and nursing mothers and young children at a cost to the Local Authority of £1,571/1/2. In 1935, 25,778 pounds were supplied at a cost of £1,605/7/4½. The nett cost in 1936, therefore, decreased by £34/6/2½.

In addition dinners were provided free, or at less than cost price for expectant or nursing mothers.

## CARE OF ILLEGITIMATE CHILDREN.

No special provision is made by the Corporation for the care of illegitimate children or unmarried mothers ; this work is undertaken at Viewfield Hostel by the Manchester Diocesan Association for Preventive and Rescue Work. The Health Department maintains a close co-operation with the authorities of the Hostel, and takes an active interest in the important work carried out there.

I am indebted to Miss Duckworth for the appended particulars respecting Viewfield :—

	<i>Mothers.</i>	<i>Babies.</i>
Number of Beds . . . . .	13	13
Number of Cases Admitted, 1936.. . . .	16	16
Number in Hostel, Jan. 1st, 1937.. . . .	9	9
Number returned to relatives and friends ..	5	5
Number of Mothers sent to situations ..	2	—

At the end of the year there were six babies under one year. Three of these were on four-hourly bottle feeds, and three on four-hourly breast feeds.

The Assistant Medical Officer for Maternity and Child Welfare visits Viewfield at regular intervals for the purpose of inspection and consultation with the Viewfield staff.

## INSTITUTIONAL PROVISION FOR MOTHERS &amp; CHILDREN

Maternity beds are provided at Springfield and Queen's Park Hospital.

Special accommodation is available for infants and children at both the Royal Infirmary and Queen's Park Hospital.

## NURSING HOMES REGISTRATION ACT, 1927.

On receipt of application for registration, the premises are visited by either the Medical Officer of Health or by a lady Assistant Medical Officer of Health. This visit is the occasion of a survey of the available accommodation, and advice is given as to structural or other alterations required. The number of beds to be used for the reception of cases is also decided upon. Following registration, the Homes are visited quarterly by Drs. Baird and Thomson, and at more frequent intervals by the Senior Health Visitor. All have been found satisfactory.

*(a) Maternity Homes :—*

At the beginning of the year there were five midwives' private Maternity Homes in Blackburn. During the year no new homes were registered. At the end of the year five labour beds and 11 lying-in beds were available in private maternity homes.

*(b) Nursing Homes :—*

At the end of the year there were five registered Nursing Homes in Blackburn, providing a total of thirty beds. During the year one new home was registered.

## THE PRE-SCHOOL CHILD.

## CAUSES OF DEATH IN CHILDREN FROM ONE TO FIVE YEARS OF AGE.

					1935		1936
Pneumonia and Bronchitis	...	...	...	...	12	...	11
Infectious Diseases (Non-Tubercular)	...	...	...	...	21	...	2
Tuberculosis (all forms)	...	...	...	...	—	...	1
Digestive System Diseases	...	...	...	...	3	...	1
All other causes	...	...	...	...	9	...	8
					—		—
TOTALS	...	...	...	...	45	...	23
					—		—

There are now 18 Nursery Classes in Blackburn, with approximate accommodation for 600 children under the age of five years. The work carried out at these classes has been fully described in the School Medical Report.

# INFANT LIFE PROTECTION

The appended Table gives particulars of infants nursed out for reward within the Borough :—

(a)	Number of Nursed Out Children, Decembor, 1935	...	...	...	13
(b)	Number of New Cases during 1936	...	...	...	4
(c)	Number who left the Borough during 1936	...	...	...	2
(d)	Transferred to Child's Mother—				
	Out-of-Borough	...	...	...	1
	In Borough	...	...	...	3 — 4
(e)	Transferred to Other Districts (in Borough)	...	...	...	3
(f)	Number at present in Borough	...	...	...	8
(g)	Number found to be :—				
	(a) Satisfactory	...	...	...	8
	(b) Unsatisfactory	...	...	...	0

Inspection dutics were undertaken by the Health Visiting Staff, who visit each case at least once in every six weeks. All the children have been found to be well cared for.

TABLE 85.

FEEDING OF INFANTS UP TO SIX MONTHS OF AGE—PERIOD FROM JULY 1ST, 1935, TO JUNE 30TH, 1936.

Condition at end of 6 months	Percentage of 1251 children investigated	Breast entirely.	BREAST FEEDING ALONE UP TO END OF						BREAST FEEDING JOINTLY WITH ARTIFICIAL UP TO END OF						Artificial fed entirely.	Not Fed.
			3 weeks	1st m'nth	2nd m'nth	3rd m'nth	4th m'nth	5th m'nth	1st m'nth	2nd m'nth	3rd m'nth	4th m'nth	5th m'nth	6th m'nth		
Satisfactory ...	82.81	40.25	5.8	8.4	5.8	6.85	4.92	2.8	2.316	2.5	1.46	1.35	0.077	0.77	14.9	...
Fairly Satisfactory.	8.38	25.71	6.6	10.47	14.7	4.76	7.61	.095	1.9	2.85	1.095	1.095	1.095	1.095	28.5	...
Unsatisfactory ...	3.51	9.09	9.09	6.81	13.63	2.27	4.54	...	4.54	2.27	2.27	9.09	2.27	2.27	31.81	...
Dead ...	5.27	3.03	15.15	3.03	10.6	1.51	7.57	...	4.54	...	...	...	...	...	25.75	28.78

*PART VIII.*

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Miscellaneous.



**TABLE 86.**  
**ULTRA-VIOLET LIGHT CLINIC.**

Diagnosis	No. of Cases Treated			No. of Cases Discharged			No. of cases att'ding at end of year		Total number of all exposures given to cases attending	
	Total	Male	Female	Cured	Improved	No Change	M.	F.	Carbon Arc	Merc. Vap.
Debility .....	123	19	114	12	76	6	6	30	1156	840
Rickets .....	29	15	14	..	12	6	4	7	526	20
Anæmia .....	45	28	17	13	13	4	8	4	1254	37
Lung Conditions (Non-Tubercular) .....	22	5	17	5	4	3	2	6	581	54
Tubercular Conditions ..	20	11	9	2	1	7	2	..	83	1107
Cervical Adenitis .....	11	8	3	..	4	..	5	2	125	93
Malnutrition.....	105	46	59	4	42	20	17	18	1580	..
Other Conditions .....	63	33	30	11	11	12	9	18	979	1349
<b>TOTAL .....</b>	<b>428</b>	<b>165</b>	<b>263</b>	<b>47</b>	<b>163</b>	<b>58</b>	<b>53</b>	<b>85</b>	<b>6284</b>	<b>3500</b>
<b>CLINICS :—</b>										
Total Health Dept. Clinic	345	124	221	18	154	48	46	79	2808	1876
Total Corporation Hospital Clinic .....	83	41	42	29	9	10	7	6	3476	1624
<b>GRAND TOTAL ...</b>	<b>428</b>	<b>165</b>	<b>263</b>	<b>47</b>	<b>163</b>	<b>58</b>	<b>53</b>	<b>85</b>	<b>6284</b>	<b>3500</b>
<b>SECTIONS :—</b>										
Tuberculosis .....	14	8	6	1	..	6	..	..	80	1112
Maternity & Child Welfare	252	69	183	6	125	35	26	55	2392	868
School Medical.....	157	84	73	40	34	17	27	29	3760	1520
Other.....	5	4	1	..	4	..	..	1	52	..
<b>GRAND TOTAL ...</b>	<b>428</b>	<b>165</b>	<b>263</b>	<b>47</b>	<b>163</b>	<b>58</b>	<b>53</b>	<b>85</b>	<b>6284</b>	<b>3500</b>

Table S6 is a composite Table which contains particulars of cases treated at both the Health Department and Hospital Clinics.

### BACTERIOLOGICAL AND PATHOLOGICAL EXAMINATIONS.

Facilities are available for the examination of pathological and bacteriological specimens at the Corporation Hospital, at the Royal Infirmary, and at the Public Health Laboratories at Manchester and Liverpool.

The appended Table gives particulars of examinations carried out during 1936.

For particulars of work carried out at the Corporation Hospital Laboratory see Table 56.

**TABLE 87.**

*Blackburn & East Lancashire Royal Infirmary :—*

Specimens examined for Spirochaetes	...	...	...	...	...	10
"    "    Gonococci	...	...	...	...	...	2353

*Manchester University :—*

Specimens examined for Spirochaetes	...	...	...	...	...	1
"    "    Gonococci	...	...	...	...	...	56
"    "    Wasserman Test	...	...	...	...	...	1231
Widal Tests for Typhoid	...	...	...	...	...	25
Faeces for Typhoid	...	...	...	...	...	98
Swabs for Haemolytic Streptococci	...	...	...	...	...	34
Other Specimens	...	...	...	...	...	13

*Liverpool University :—*

Swabs for Haemolytic Streptococci	...	...	...	...	...	97
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### LOCAL GOVERNMENT ACT, 1929.

No alterations or developments have taken place during the year.

The work of both Public Assistance and Health Committees is closely co-ordinated.

### MENTAL DEFECTIVES.

The Local Authority does not provide institutional accommodation for mental defectives, nor has there been any change in the arrangements as described in the Report for 1933.

## NURSING IN THE HOME.

Domiciliary nursing of cases of Measles, Whooping Cough, Diarrhœa, Puerperal Fever, Ophthalmia Neonatorum, Influenzal Pneumonia, and Tuberculosis is undertaken by the District Nursing Association.

The Corporation pay the Association an annual retaining fee of £35 for these services, with an additional payment of 8d. per visit.

The appended Table gives particulars of the work carried out by the District Nursing Association in this respect during 1936 :—

TABLE 88.

## HOME NURSING BY DISTRICT NURSES.

Disease	On books Jan. 1st 1936	New Cases	Cured	Died	Hospital	Remain- ing end of 1936	Visits
Tuberculosis .. ..	..	20	4	11	3	2	322
Pneumonia .. ..	4	75	50	18	8	3	1439
Puerperal Fever and Pyrexia .. ..	..	3	2	1	..	..	49
Ophthalmia Neonatorum .. ..	..	1	..	..	1	..	8
TOTAL .. ..	4	99	56	30	12	5	1818

## HEALTH EDUCATION.

During the year lectures (in addition to those given to school-children and their parents and those given by the Health Visitors on Mothercraft) were given by members of your staff to various religious and social organisations in the Borough.

## PREVENTION OF BLINDNESS.

Although no formal scheme exists for this purpose the Council, as part of its general health and school medical services, provides adequate facilities for the prevention of blindness.

- (1) Many cases of blindness are venereal in origin.

Treatment of these diseases is undertaken both at the Royal Infirmary and at the Health Department. The latter Clinic is part of the Maternity and Child Welfare Scheme and covers marital and innocent cases, both infantile and adult.

- (2) A consultant oculist service is available for school and pre-school children, and for the treatment of ocular defects which arise at the Isolation Hospital during the course of infectious disease.

All but the most trivial defects are referred to the consultant oculist for opinion and treatment.

- (3) Beds are provided at the Isolation Hospital for the reception of cases of ophthalmia neonatorum.

- (4) The Education Authority has provided a class for partially-sighted at Roe Lee School. After leaving school these cases are followed up by the Home Visitors.

- (5) Medical practitioners have been notified of the consultant services provided by the Blind Persons Act Committee, and have been asked to notify doubtful cases to the Health Department.

## WELFARE OF THE BLIND.

## THE BLIND PERSONS ACT, 1920, SEC. 2, SUB-SECTION 1.

The Local Authority has made provision for the welfare of the blind through the Blackburn Workshops for the Blind and the Blackburn and Darwen Home Visiting Society. The Workshops are now administered by the Corporation.

In 1936 the Blind Persons Scheme cost the Corporation £4,439, allotted as under :—

Workshops for the Blind	...	...	...	...	£1,345.
Visiting Society	...	...	...	...	£434.
Other Blind Agencies	...	...	...	...	£255.
Grants to unemployable necessitous persons	...				£2,325.
Professional Charges	...	...	...	...	£75.
Sundry expenses	...	...	...	...	£5.

In addition to the above grants the Workshops received £600 and the Visiting Society £180 from the Joint Finance Committee for the Blind. This Committee is composed of representatives from the Local Authorities whose districts are served by the Workshops and Visiting Society. Its function is to organise and co-ordinate the raising of voluntary funds for the Blind.

The Blind Register contains particulars of 274 blind persons resident in Blackburn.

TABLE 89.

## Corporation Hospital Station, Height 560 feet.

## METEOROLOGY, 1936.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.
Amount of Bright Sunshine..	19 10	68 15	31 10	152 40	197 5	126 0	87 35	114 57	84 30	84 25	41 5	24 45	1029-37
Average per day .....	0 13	2 21	1 0	5 5	6 21	4 12	2 49	3 25	2 49	2 49	1 22	0 48	..
Maximum amount in one day.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	..
	5 0	7 40	6 20	12 30	12 30	13 5	11 40	12 15	7 40	9 0	5 20	5 0	..
Total Rainfall (in inches)....	5.06	2.64	2.91	1.17	0.80	3.91	4.82	2.665	3.84	4.17	5.18	4.37	41.535
No. of days on which rain fell.	24	17	20	16	12	20	27	17	15	20	18	20	226
Av. Temp. at 9 a.m. (Fahr.)..	36.4	33.3	40.6	38.3	47.3	53.2	54.8	55.2	53.6	45.8	40.6	40.0	—
Temp. of earth at depth of 1ft.	37.0	38.3	40.1	42.7	50.9	52.2	58.0	58.4	57.5	49.6	43.1	40.1	—
Temp. of earth at depth of 4ft.	42.0	38.8	39.2	42.6	46.1	50.3	55.3	55.7	56.2	52.7	48.1	43.2	—
Highest Temp. in Shade ....	54.0	51.0	62.0	56.0	74.0	83.0	70.0	76.5	69.0	61.0	52.0	55.0	—
Lowest Temp. in Shade ....	23.0	21.0	27.0	27.0	34.0	38.0	45.0	45.0	37.0	24.0	23.0	23.0	—
Av. Temp. Sun (black bulb)...	34.1	31.4	37.6	35.7	49.0	73.6	68.0	68.2	66.8	82.0	62.9	49.2	—
Lowest Temp. on Grass ....	18.0	19.0	26.0	23.0	28.0	32.0	37.0	39.0	29.0	26.0	20.0	17.0	—
Highest cor. reading of barom.	30.085	30.329	30.139	30.444	30.177	30.014	30.007	30.227	30.191	30.218	30.350	30.427	—
Lowest cor. reading of barom.	28.756	28.817	29.385	29.468	29.617	29.319	29.193	29.375	29.099	29.281	28.670	28.633	—
Mean reading of barometer... (uncorrected)	28.846	29.410	29.184	29.347	29.432	29.329	29.029	29.372	29.338	29.407	29.177	29.273	—



A P P E N D I X .

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JEFFREY RAMSAY, M.D., M.R.C.P.,

SENIOR HONORARY PHYSICIAN,

BLACKBURN & EAST LANCASHIRE ROYAL INFIRMARY,

AND

V. T. THIERENS, M.B., CH.B., D.P.H.

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IN the Annual Report for 1935 reference was made to an investigation which was being carried out with reference to certain bacteriological and bio-chemical aspects of the blood during pregnancy.

One hundred specimens have been examined and the results, which are at present being analysed, will be the subject of a later report.













